D.7 Cultural Resources

This section provides contextual information on the Cultural Resources located within the Proposed Project area and analyzes the potential impacts that project-related ground-disturbing activities may have on those resources. In addition, appropriate measures to avoid or reduce significant impacts on cultural resources are identified. Information for the Proposed Project and Alternatives was gathered from the PEA (SCE, 2013) prepared by SCE for the CPUC, along with archaeological survey and evaluation reports prepared on SCE's behalf by LSA Associates, Inc. (LSA) ASM Affiliates (ASM), and SCE. These data were reviewed and verified by the CPUC consultants who developed this EIS. Specifically, the affected environment for Cultural Resources is described in Section D.7.1 and relevant regulations and standards are presented in Section D.7.2. Impacts of the Proposed Project and the alternatives are described in Sections D.7.3 through D.7.5. Section D.7.6 presents the mitigation measures and mitigation monitoring requirements, and D.7.7 lists references cited.

D.7.1 Environmental Setting / Affected Environment

The study area encompasses the northern Peninsular Ranges, the southeastern Transverse Ranges, and the westernmost portions of the Colorado Desert geomorphic provinces of California. The Peninsular Ranges are composed of a northwest-southwest oriented complex of blocks separated by similarly trending faults that extend approximately 125 miles from the Los Angeles Basin to the tip of Baja California (Norris and Webb, 1990). The Peninsular Ranges are bounded on the east by the Colorado Desert and on the west by the Pacific Coast (Morton and Miller, 2006). The highest point in the range is San Jacinto Peak at 10,805 feet (ft) above mean sea level (amsl) (Norris and Webb, 1990).

The Transverse Ranges extend 325 miles west-east from the Santa Ynez Mountains in Santa Barbara County, to the San Gabriel Mountains in Los Angeles County, and to the San Bernardino Mountains in San Bernardino County (Norris and Webb, 1990). Within the study area, the San Bernardino Mountains rise 11,502 ft amsl at the highest peak, and extend 65 miles from the Cajon Pass and the San Andreas fault on the west and southwest, to Twentynine Palms and the Morongo Valley in the east and southeast (Norris and Webb, 1990).

The Proposed Project area extends east to the Coachella Valley within the westernmost portions of the Colorado Desert (Dibblee and Minch, 2004). The Colorado Desert is a low-lying geomorphic region bounded by the Mojave Desert to the north, the Colorado River on the east, the Peninsular Ranges on the west, and extends south into Mexico. The Coachella Valley is located within the Salton Trough; a large structural depression that extends from the San Gorgonio Pass in the north to the Gulf of Mexico in the south (Norris and Webb, 1990).

D.7.1.1 Regional Setting and Approach to Data Collection

A cultural resource is defined as any object or specific location of past human activity, occupation, or use, identifiable through historical documentation, inventory, or oral evidence. Cultural resources can be separated into three categories: archaeological, building and structural, and traditional resources.

Archaeological resources include both historic and prehistoric remains of human activity. Historic resources can consist of structures (such as cement foundations), historic objects (such as bottles and cans), and sites (such as refuse deposits or scatters). Prehistoric resources can include lithic scatters, ceramic scatters, quarries, habitation sites, temporary camps/rock rings, ceremonial sites, and trails.

Building and structural sites can vary from historic buildings to canals, historic roads and trails, bridges, ditches, and cemeteries.

A traditional cultural resource or traditional cultural property (TCP) can include Native American sacred sites (such as rock art sites) and traditional resources or ethnic communities important for maintaining the cultural traditions of any group.

Data Collection Methodology

For the Proposed Project, records searches were conducted at the Eastern Information Center (EIC) at the University of California, Riverside and at the San Bernardino Archeological Information Center (SBAIC) at the San Bernardino County Museum in Redlands, California. Records searches consisted of a review of relevant historic maps, and excavation and survey reports. Site forms for recorded sites within a 0.5-mile radius of the project route (including substations, staging yards, telecommunications lines, and subtransmission lines) were copied.

Field surveys were conducted in order to verify the location of any previously identified cultural resources and to inspect previously unsurveyed lands within the project study area. Field surveys are useful for identifying aboveground or surface cultural resources and for identifying high-probability areas. However, negative pedestrian survey results do not preclude the possibility that buried archaeological deposits could be discovered. LSA conducted pedestrian field surveys between December 2011 and July 2013 (McLean et al., 2013). Additional surveys were conducted by ASM in July, August, and September 2014 (DeCarlo and Winslow, 2015a).

All previously recorded and newly identified resources located within the project's Area of Potential Effect (APE; see below) were evaluated for significance against National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria. These guidelines are detailed in Section D.7.2. Evaluations were made on the basis of surface observations, intensive archival research and/or test excavations (DeCarlo and Winslow, 2015a, 2015b, 2015c; LSA and Williams, 2014; Williams and Belcourt, 2015).

The BLM, as the Federal Lead Agency under NEPA, has initiated required government-to-government consultation with appropriate Native American groups regarding project effects on traditional cultural values. Consistent with the principles stated in Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments, November 6, 2000) and the Executive Memorandum of April 29, 1994 (Government to Government Relations with Native American Tribal Governments), BLM invited 14 individuals and tribes to participate in project consultation. It is BLM's intent to continue formal consultation with these tribal representatives.

Area of Potential Effect (APE)

The APE for direct effects for project licensing/permitting and subsequent construction, as defined by BLM, corresponds to the area within any existing Right-of-Way (ROW), which for the 220 kV transmission lines varies from 100 to 800 feet wide and any new ROW acquired under the project; a 50-foot-wide buffer on each side of the centerline of any existing road, 66 kV subtransmission line, or distribution line that will be modified or newly developed for use during construction that otherwise extends beyond the 220 kV transmission line corridor ROW; and the land disturbance footprint for any staging area, materials yard, helicopter assembly yard, etc., as well as the entire area of any substations constructed or modified for the project. The APE for indirect effects includes a 0.5-mile-wide buffer on each side of the direct effects APE. Indirect effects to location, setting, feeling, and association of properties eligible for or listed on the National Register of Historical Places (NRHP) under Criterion A, B, or C, and unevaluated or unrecorded resources identified by Indian tribes were considered.

Findings Summary

LSA's archival research indicated that a total of 87 surveys had been conducted within a half-mile of the Proposed Project route. Of these, 43 reports include various portions of the current study area. Information gathered from archival research and field surveys was also used to assess the potential for encountering previously unrecorded cultural resources in the Proposed Project area.

Through intensive archaeological survey and archival research, LSA and ASM (McLean et al., 2013; DeCarlo and Winslow, 2015a, 2015b, 2015c; LSA and Williams, 2014; Williams and Belcourt, 2015) identified 325 cultural resources within or immediately adjacent to the project's APE. All cultural resources were documented on California Department of Parks and Recreation forms (DPR 523) or their records updated during studies for the Proposed Project. Of the 325 identified cultural resources, only 118 are within the direct APE of the Proposed Project and may experience impacts.

D.7.1.2 Environmental Setting

Prehistoric Background

The prehistoric cultural sequence within the Proposed Project route has been summarized by Williams and Belcourt (2014:7-13) as follows:

The prehistoric cultural setting for the project area is reflected in the archaeology and prehistoric cultural sequence for the California desert regions, a distinctive sequence that spans some 10,000 years of human cultural development and environmental adaptation (Crabtree, 1981; Warren, 1984; Schaefer, 1994; Schaefer and Laylander, 2007; Sutton et al., 2007). For the Colorado Desert region, resolution of chronological sequencing, the general rarity of cultural deposits dating to the archaic periods, the abundance of diversity of adaptive patterns and the chronology of occupation associated with Lake Cahuilla are issues that challenge modern researchers.

Pleistocene/Early Holocene. A prevailing interest in the origins of native cultures within the desert regions has led to a body of controversial data interpreted by some as evidence of cultural development predating the terminal Pleistocene, or older than 10,000-12,000 years ago. However, an Early Pleistocene occupation of the California deserts has not been demonstrated, and current consensus recognizes Clovis as the earliest cultural complex represented (Moratto, 1984).

Approximately 12,000–7000 before present (BP) during the Early Holocene, the area between San Bernardino and San Gorgonio Pass was occupied by Native American people (Moratto, 1984:110–113). Early Holocene Cultures of California have been interpreted as diversified foraging economies. Elsewhere, evidence suggests a social structure based primarily on the hunting of now extinct megafauna. The occurrence of extremely large and occasionally fluted bifaces associated with the use of the spear and atlatl marks sites from this time (Moratto, 1984:81).

In much of California, the Western Pluvial Lakes Tradition (WPLT) has been proposed as a concept to "…bring order to some of the taxonomic chaos…" in an effort to organize the "…terminological jungle that has obscured basic archaeological patterns and relationships…" (Moratto, 1984:92). In general, the WPLT toolkit commonly includes crescentics, large flake and core scrapers, choppers, scraper planes, hammerstones, different core types, drills, and gravers (Moratto, 1984:93). A primary characteristic of WPLT sites is their location on the shores of pluvial lakes from northern central California to southern California (Moratto, 1984:81, 103). The Lake Mojave Complex is one of the best known expressions of the WPLT.

Situated between San Bernardino and the San Gorgonio Pass area, the southeastern end of the project's APE/study area lies near the greatest northwestern extent of ancient Lake Cahuilla, a catchment basin measuring more than 100 miles long by 30 miles wide filled during diversions of the Colorado River. Ancient Lake Mojave, over 60 miles northeast of the project study area, is located on the north side of the San Bernardino Mountains. Prehistoric sites and material from both ancient lake areas are relevant to the current discussion.

The Lake Mojave Period was characterized by a generalized hunting and gathering subsistence system that is thought to be ancestral to archaic cultures of the Pinto period and, as such, has become the comparative unit for Early Man in the Mojave Desert (Warren and Crabtree, 1986:184). Lake Mojave ground stone artifacts are large and unshaped with minimal grinding wear. Notable features of Lake Mojave flaked stone technology are the use of percussion flaking for all stages of tool manufacture and the high proportion of fine-grained igneous lithic material. Flaked stone artifacts include large stemmed Lake Mojave and Silver Lake projectile points, leaf-shaped bifaces, bifacial cores, crescentics, domed and keeled scrapers, shaft straighteners, and large core-cobble tools (Hall, 1993:19; Horne and McDougall, 1997:9).

Middle Holocene. During this period, 7000–3500 BP, Pinto Period culture succeeds Lake Mojave Culture, and is well documented in the Mojave Desert where widespread occurrence of the Pinto cultural complex has been demonstrated (Crabtree, 1981:40; Sutton et al., 2007:238). Tool stone technologies appear as a continuum advancing from the flaked stone tool kits assigned to earlier Paleoindian sequences. Pinto Period flaked stone artifacts include weakly shouldered, concave-base Pinto points, large and small leaf-shaped bifaces, domed and keeled scrapers, and an abundance of core and cobble tools. Percussion flaking of fine-grained igneous lithic material continued to dominate the lithic assemblage from this period. An increase of ground stone implements, both shaped and unshaped, indicate an increased reliance on seed processing (Hall, 1993:21; Horne and McDougall, 1997:9). Revised dating estimates of Pinto deposits in the Mojave Desert demonstrate that intensive levels of plant processing began sometime before 7000 years B.P., before the onset of severe Middle Holocene desiccation (Sutton et al., 2007).

Investigations at Indian Hill rock shelter (CA-SDI-2537), located in the southwest margin of the Colorado Desert along the foot of the Peninsular Range, revealed a substantial Late Archaic component that spans the transition from the Middle Holocene to the Late Holocene/Late Prehistoric. The Middle Holocene component is represented by multiple rock-lined storage cache pits, numerous hearths, Elko Eared dart points, other flaked stone and milling equipment, and inhumations, one of which was radiocarbon dated at 4,070±100 years BP. Both lacustrine and terrestrial biotic economic resources were also identified (McDonald, 1992:131).

Analyses of dart points from Indian Hill rock shelter indicate that these points were reworked after suffering impact damage into shorter and blunter profiles, and that 11 broken dart points possess breakage patterns consistent with impact damage, indicating that the site served as a "home base" or "hunting camp" where retooling took place. Milling equipment in the assemblage consists mostly of broken and fire-affected manos and metates that were often recycled as hammerstones, cooking stones, and as construction material in cache pits and hearths (McDonald, 1992:240).

Cultural research in the Colorado Desert has recently exposed site deposits and features dating to the Late Holocene, all located within the Salton Trough and Coachella Valley, and generally bracketing the northern margins of the Lake Cahuilla Basin. More than a dozen deeply buried cultural deposits exposed by construction grading have been documented. The majority of these deposits occur within sand dune formations; some in flats, where alluvial sands and lake bottom sediments are interblended; and one (CA-RIV-6797) located well below the Lake Cahuilla shoreline where the Archaic deposit rests 0.5m below later

lakebed silts and clays. A suite of 30 radiocarbon assays from 13 distinct deposits and features demonstrate cultural occupation along the northern margins of the Lake Cahuilla basin going back at least 3,000 years (Love and Dahdul, 2002).

For the Late Archaic Period, the northern Lake Cahuilla basin appears to demonstrate a growing complexity in cultural development leading into the Late Prehistoric Period. This is represented in the numbers of various site types distributed across the landscape, in the stone tool assemblages reflecting subsistence practices focusing on lacustrine and/or terrestrial biotic resources, and in the representation of regional economic trade and exchange as evidenced by the presence of marine shell ornaments from the Gulf of California and obsidian tool stone from the Coso Volcanic Fields (Williams and Belcourt, 2014: 11).

Late Holocene. Within the project during the Late Holocene, the ethnographically recognized Cahuilla occupied the region of western Coachella Valley and the San Gorgonio Pass. To the south of the study area, the San Jacinto Valley was most likely a transition zone occupied by both the Cahuilla and Luiseño (Bean and Vane, 1978). During the ethnohistoric period, the Serrano were also present in the San Gorgonio Pass, and the Cahuilla were present in the San Jacinto Valley and San Timoteo Canyon.

The Cahuilla, Luiseño, and Serrano, are Takic-speaking people of the Uto-Aztecan linguistic stock (Bean and Vane, 1979; Miller, 1984). The Cahuilla and Luiseño are of the Cupan sub-group, while the Serrano (and Gabrielino) are of the Serrano-Gabrielino sub-group (Miller, 1984). Before the more recent Takic linguistic grouping, the Cahuilla, Luiseño, Gabrielino, and Serrano were included within the southern Californian branch of the Shoshonean family by Kroeber (1907, 1925). Cahuilla, Serrano, and Luiseño settlement patterns and culture are further addressed in the following Ethnographic section.

Speakers of the Uto-Aztecan family were located in the Great Basin, southern California, and an area stretching from southern Arizona into northwest and central Mexico (Miller, 1984). While the exact chronology involving the immigration and Late Holocene settlement of the Takic-speaking groups in southern California remains uncertain, it is generally accepted that the population of Native Americans in the region substantially increased towards the end of the Late Prehistoric Period. Additionally, after A.D. 1600, the desiccation of Lake Cahuilla resulted in an intensification of land use in the San Gorgonio Pass, the San Jacinto Plain, and Perris Valley regions that was reflected into the ethnohistoric period (Bean et al., 1991; Wilke, 1974, 1978; Schaefer, 1994).

The changes in settlement and subsistence patterns and increase in population in the Late Prehistoric Period may have been influenced by climatic factors and the cycles of filling and drying of Lake Cahuilla. Around A.D. 700, Lake Cahuilla began its last stand as a freshwater lake. Within this period, there were four, and possibly five, lacustral intervals. Early accounts suggest that between A.D.1500 and 1600, the Colorado River reversed its course and the lake levels dropped, resulting in a reestablishment of desert conditions. However, more recent research suggests that the lake experienced an infill during the middle to late seventeenth century, a time characterized by warm and arid conditions referred to as the Medieval Warm Period (approximately A.D. 800 to 1350) (Sutton et al., 2007).

The primary research debates surrounding Lake Cahuilla land use revolve around arguments of whether settlement adjacent to the lake was year-round or seasonal; what role the lake played in the shift of settlement patterns; and relationships to population increases seen in the seventeenth and eighteenth centuries. According to Weide (1974), the shoreline of Lake Cahuilla fluctuated, the habitats were unstable and unreliable, and lakeshore settlement patterns must have been seasonal. Wilke (1978) argues that Lake Cahuilla was stable and supported year-round, or nearly year-round, settlement bases.

Based on the concept of Lake Cahuilla providing a stable habitat that supported year-round settlement, Wilke (1978) inferred that the sudden drying up of Lake Cahuilla resulted in the permanent shift of populations from the lakeshore to locations of low desert or upland resources, such as Coachella Valley or the Peninsular Range. However, it is unclear if the shift in lakeshore populations after the final recession of the lake reflects a more subtle, rather than a major, readjustment in settlement change. If the hypothesis of Lake Cahuilla being used more as a secondary, seasonal resource is taken into account, then the drying up of the lake would not have had such a dramatic effect on regional settlement patterns (Wilke, 1978; Schaefer, 1994).

While the Medieval Warm Period does not support an argument for a stable lake, it may well have been a contributing factor influencing Late Prehistoric settlement around the shore of Lake Cahuilla. South of the study area, studies conducted for the Eastside Reservoir Project hypothesized that the Medieval Warm Period may account for the lack of sites in the Eastside Reservoir Project area dating to the Saratoga Springs Period (A.D. 500 to 1200), claiming that desert and inland areas of western Riverside County may not have been suitable to support residential bases. The studies further hypothesized that settlements may have been clustered at more reliable water sources during this time, such as the coast, Lake Cahuilla, or Lake Elsinore (Goldberg, 2001).

On the other hand, the Eastside Reservoir Project's Late Prehistoric (A.D. 1200 to 1540) and Protohistoric (A.D. 1540 to 1770s) periods coincide with the Little Ice Age, generally dated from A.D. 1400 to 1875 (Goldberg, 2001; Sutton et al., 2007). During these periods, the climate was cooler and moister, and the sites identified within the Eastside Reservoir Project area reflect a substantial increase in diversity and number, longer occupation periods, and more sedentary land use. Intensification of land use also occurred in neighboring San Gorgonio Pass and Perris Valley (Bean et al., 1991; Wilke, 1974). However, the role that the desiccation of Lake Cahuilla played in the population growth and in the intensification of land use in these areas is still not entirely clear (Schaefer, 1994; Laylander, 2006).

Ethnographic Background

The Proposed Project crosses through the ethnographic territories of the Cahuilla, Luiseño, and Serrano people. The following paragraphs from *Archival Research and Evaluation Results of 33 Cultural Resources for Southern California Edison Company's West of Devers Upgrade Project, Riverside and San Bernardino Counties, California* (Williams and Belcourt, 2014:13-15) provide a brief description of each group.

During the ethnohistoric period a great deal of settlement shifting took place. By the early twentieth century, Serrano were present in the San Gorgonio Pass along with the Cahuilla, Cahuilla and Luiseño were present in San Jacinto Valley, and some Cahuilla groups from the San Jacinto Mountains had moved to the San Bernardino Valley and then to San Timoteo Canyon in the mid-1800s.

Much of what is known about the native occupants of southern California at the time of Spanish contact comes from ethnographic and ethnological studies conducted in the early part of the twentieth century. Unfortunately, in the late eighteenth and nineteenth centuries, Spanish and Mexican influences greatly reduced native populations, particularly those along the coast. The more western Luiseño and other coastal tribes were most affected by the missions. Due to the inland geographical location of the Cahuilla and Serrano territories, the Spanish institutions did not directly affect them as much (Strong, 1929; Bean, 1978).

Cahuilla. The Cahuilla inhabited a territory from the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, a portion of Colorado Desert west of Orocopia Mountain to the east, the San Jacinto Plain near Riverside, and the eastern slopes of Palomar Mountain to the

west. The Cahuilla occupied portions of the project vicinity within the western Coachella Valley and San Gorgonio Pass. Cahuilla territory was bisected by the Coco-Maricopa Trail, one element in the Pacific Coast-Great Plains trading routes used by native populations. Their territory was also at the periphery of two other trail systems: the Santa Fe and the Yuman trails. Subsequently, the Cahuilla regularly interacted with neighboring tribes.

Villages were situated in canyons or on alluvial fans, areas that provided adequate water and food sources as well as protection from strong winds. Group members left the permanent villages for specific purposes including trade, hunting, or gathering. The Cahuilla relied on hunting rabbits and other small game, and gathering acorns, mesquite and screw beans, pinyon nuts, and cactus bulbs for subsistence. In addition, Cahuilla practiced proto-agriculture where corn, beans, squash, and melon were harvested. Cahuilla used stone mortars and pestles, manos and metates, wooden mortars, baskets, pottery, arrow shaft straighteners, willow and mesquite bows and arrows, and numerous ceremonial instruments (Bean, 1972; Carrico et al., 1982).

Luiseño. The Luiseño possessed a more rigid social structure and greater population density than the Cahuilla or Serrano. However, it has been suggested that social organization was more complex among the populous coastal villages, and less so among smaller inland settlements. Sedentary villages were located in diverse ecological zones, and exploitation of resource areas was strictly controlled by ownership of resource territories along family, lineage, and village lines (Strong, 1929).

The Luiseño settlement pattern was seasonally based. In the winter, the larger clan coalesced into a shared habitation village and lived primarily on stored foods, such as acorns. Beginning in the spring, the winter village group divided into smaller groups, each group occupying and exploiting a small area where fresh vegetal resources could be gathered. Occasionally, journeys to the coast to collect shellfish may also have occurred. This breakup of the village group into family groups at the end of winter, after the stored fall crops were depleted, was a normal occurrence in hunter-gatherer societies and compensated for sparse spring resources, which generally were harder to find and less plentiful. At the end of summer and beginning of fall, a secondary base camp, frequently situated near an oak grove, was inhabited for acorn collecting as well as hunting. These summer-fall camps were also subdivisions of the primary winter camp, being occupied by smaller clan subdivisions of the larger clan-group (Bean and Shipek, 1978; White, 1963).

Serrano. Researchers document the Serrano as highly mobile, utilitarian-based societies, residing in permanent villages with satellite camps spread throughout their territories (Bean et al., 1981; Kroeber, 1925). Plant and animal resources were widely dispersed across the landscape. Therefore, many collecting and food processing areas were used throughout the year as different resources became available in various life zones (Davis, 1974). The Serrano were loosely organized into exogamous clans that served as the largest autonomous political and landholding unit (Strong, 1929). There was no form of pan-tribal political union among the clans, all bonds being strictly ceremonial in nature with alignments arising along lines of economic, marital, or ceremonial reciprocity. In addition to forming bonds with other Serrano clans, they also formed alliances with Cahuilla, Chemehuevi, Gabrielino, and Cupeño groups (Bean and Smith, 1978:572).

Serrano subsistence included gathering, hunting, and (occasionally) fishing. Material culture included a wide variety of implements, including baskets; pottery; stone milling equipment; stone, wood, and bone implements; rabbit skin blankets; and woven nets and storage pouches (Drucker, 1937). Their structures consisted of family residences and ramadas, storage granaries, and sweathouses. Village locations most often included a large ceremonial house that also served as a religious center, for use by the lineage leader. Because the San Bernardino Mountains were the central home of the Serrano, villages were primarily located in the forest; however, many were located in the foothills and a few on the desert floor.

The primary factor for village choice was proximity to a year-round water source (Strong, 1929; Bean and Smith, 1978).

Historic Background

Historic cultural activities within the Proposed Project route began within what is now San Bernardino and Riverside Counties in the late 1700s. Williams and Belcourt (2014:7-13) summarize the historical activities of Spanish, Mexican, and American rule, occupation, and land use within the project and vicinity as follows:

Hernando de Alarcón sailed up the Colorado River in 1540, marking the first European entrance into the Arizona/California region. Alarcón stopped at a point near Yuma and did not travel far enough north to enter the project. More substantial Spanish exploration began with the entradas of Father Jacobo Sedelmayr in 1744, when he traversed the region near what is now Blythe. Almost 30 years passed before Francisco Garces and his party crossed areas near the project in 1771 and then again in 1776.

In 1769, a Spanish expedition headed by Gaspar de Portolá and Junípero Serra traveled north from San Diego to seek out locations for a chain of presidios and missions to extend the Spanish Empire from Baja California into Alta California. The Presidio of San Diego and mission San Diego de Alcalá were established in San Diego in July 1769, followed by the Presidio of Monterey and mission San Carlos Borromeo de Carmelo in 1770 in northern California. Other missions established close to the study area include San Gabriel Arcángel (1771), San Juan Capistrano (1776), and San Luis Rey de Francia (1798) (Williams and Belcourt, 2014: 16).

The first Spaniard to visit what is now Riverside County was Don Pedro Fages, commander at the San Diego presidio, in 1772. In the pursuit of deserted soldiers, Fages traveled from San Diego east to the desert in Imperial County and then northwest through the San Jacinto Mountains and San Jacinto Valley towards Riverside (Lech, 2004). The first well-documented Spanish contact within inland southern California was by Spanish military captain Juan Bautista de Anza, who led expeditions in 1774 and 1775 from Sonora to Monterey to explore a land route northward through California from Sonora (1774), and to bring settlers across this land route to strengthen the colonization of San Francisco (1775). Anza's route crossed the Colorado River near its confluence with the Gila River, near modern-day Yuma, Arizona. West of the Colorado River, the expeditions turned westward, avoiding the Algodones dunes and moving between the available water sources. Once reaching the Peninsular Range, the expeditions headed north-northwest, with Anza's route following a similar one as Fages' from the San Jacinto Mountains and northwest through Bautista Canyon into the San Jacinto Valley (Bolton, 1930; Rolle, 1963).

Anza's 1774 expedition into Alta California included 34 people with horses and cattle, while the 1775 colonizing expedition brought 240 people, of whom 151 were women and children, and more sizeable herds. Little documentation exists of Anza's route being used after the 1774 and 1775 expeditions. Seven years later, the Spanish government closed the route due to uprisings by the Yuman Indians. However, by that time, the missions were established and increasingly self-sufficient, thus diminishing the need for resupply from Sonora (Williams and Belcourt, 2014: 16).

Due to the inland geographical location of the Cahuilla and Serrano territories, the Spanish missions did not have as direct an effect upon them as they did upon the Luiseño and other coastal tribes. However, in the late 1810s, ranchos and mission outposts, called *asistencias*, were established near the Cahuilla and Serrano territories, thereby increasing the amount of Spanish contact. An *asistencia* was established south of the study area in Pala in 1818, and the San Bernardino *asistencia* was established in 1819 on the Guachama Rancho, located partly within the project study area. Additionally, Rancho San Jacinto was estab-

lished for cattle grazing in the San Jacinto Valley. In 1820, Father Payeras, a senior mission official, suggested that the San Bernardino and Pala *asistencias* be developed into full missions to establish an inland mission system. However, Mexico won its independence from Spain in 1821, and shortly thereafter a decline in mission activity occurred followed by the secularization of the missions in the 1830s (Lech, 2004).

Between 1834 and 1836, secularization of the missions was implemented. Although California's governor José Maria Echeandía suggested in the 1820s that the former mission lands should be used for Indian village settlement, the Secularization Act passed by the Mexican government in 1833 enabled successive governors to disperse the land as they wanted. Lands previously held by the missions began to be divided into *ranchos*, granted to private Mexican citizens. In 1835, Jose Antonio Estudillo of San Diego submitted the first petition in Riverside County for the San Jacinto Rancho. Although Estudillo's petition was for four square leagues (approximately 30,000 acres), in 1842 he was granted close to the maximum size allowed of 11 square leagues. In 1845, Estudillo's son-in-law, Miguel de Pedrorena, filed a petition for half of the San Jacinto Viejo Rancho and a small additional portion of land to the northeast in the hills east of Lamb Canyon. This portion, the northern half of the San Jacinto Viejo Rancho, became known as the *Rancho San Jacinto Nuevo y Potrero* (Lech, 2004).

During the time of Spanish encroachment, the majority of the Mojave Desert was rarely traversed until after Mexican independence in 1821. Unlike the coastal areas and foothills of southern California, there were no Spanish- or Mexican-period land grants established in the Mojave or Colorado deserts. Around this time, Jose Romero and Juan Maria Estudillo crossed the study area via Indio and the Colorado River. The expedition reportedly traveled northeast between the Orocopia and Chuckwalla Mountains and then turned east. Surveys for potential railroad routes followed a similar path in the 1850s, with a trail established that became known as Frink's Route or Brown's Wagon Road. As was the case with many early Spanish, Mexican, and American overland routes, the famed Coco-Maricopa Trail that began as an Indian trail served as a mail route between Sonora Mexico and Alta California and then later as the Bradshaw Trail (Bean and Mason, 1962).

In 1848, the United States (U.S.) acquired California through the Treaty of Guadalupe Hidalgo. Although California had begun to see the arrival of Americans from the east in the 1830s and 1840s, it was after acquisition by the U.S. that the growth of the American population in California began to increase. Southern California was increasingly developed and occupied as more Americans migrated to the region in pursuit of land, gold and other minerals, agriculture, and speculation interests (Lech, 2004).

Initially, southern California was divided into only two counties: Los Angeles and San Diego. In 1853, San Bernardino County was added, placing what is now Riverside County primarily within San Diego County and partially within San Bernardino County. In the early era of the American period, the U.S. government quickly went to work surveying their newly acquired land in order to facilitate settlement; however, the Treaty of Guadalupe Hidalgo bound the U.S. to honor the land claims of Mexican citizens who were granted ownership of ranchos by the Mexican government. The Land Act of 1851 ("Act to Ascertain and Settle the Private Land Claims in the State of California") established a board of commissioners to review land grant claims. Patents for the *Rancho San Jacinto* and *Rancho San Jacinto Nuevo y Potrero* grants were issued in 1880 and 1883 to the heirs of Estudillo and Pedrorena, respectively (Williams and Belcourt, 2014:17, 18).

The California Gold Rush of 1849 affected the northern regions of the state but had little effect on inland areas of the south. Men with gold wanderlust poured into the gold regions of northern California by a variety of routes, but very few tempted the dry and inhospitable passage across the Mojave and Colorado deserts. Nonetheless, some small-scale mining took place within the Colorado Desert in the 1860-1890

eras as a result of strikes near Blythe. Individuals, rather than formal mining companies, eked out their living working claims in the La Paz and Castle Dome areas. One of these prospectors, William Bradshaw, established an overland stage route that linked the mining boomtown of La Paz, Arizona, with San Bernardino. Known as the Bradshaw Trail, the route followed ancient Cahuilla and Maricopa trails that linked wells and springs located throughout the desert (Vredenburgh et al., 1981).

The coming of the railroads to the deserts would change the face of the region. In the early 1880s, the Atlantic and Pacific Railroad (now the Santa Fe Railway) completed its track system across the California desert. Until the coming of paved roads and automobiles in the 1930s, the railroad served as the major transportation artery across the deserts (Fickewirth, 1992; Myrick, 1962).

One of the main thoroughfares commissioned was Highway 60. This highway was originally slated to follow U.S. Route 66 from Los Angeles to Chicago, but intervention by the southern states led to it becoming one of two major transcontinental highways with U.S. Route 60 running from Virginia Beach, Virginia, to Los Angeles. For over 40 years, U.S. 60 served as a key distribution route for goods throughout the southern portion of the U.S. In 1964, California implemented a plan to simplify its highway numbering system, and as a result, U.S. Highway 60 was decommissioned. During the construction of Interstate 10 (I-10), previously Route 10, U.S. 60 was provisionally reinstated from Beaumont to Blythe. When all of Route 10 was upgraded to a freeway, this U.S. Highway designation disappeared and U.S. 60 became California State Route SR-60. Portions of I-10 from Beaumont to Blythe still contain markers designating it jointly as I-10 and U.S. Highway 60, while some signs still carry evidence of the original U.S. 60 shield, though covered by the SR-60 signs. Much of the old U.S. 60 is still preserved, with some sections in the desert remaining virtually untouched since it ceased to be a legislative route. Additional evidence of U.S. 60 can still be seen in stacks of highway survey monuments used by construction workers while upgrading the road to federal conditions as dictated by the 1926 mandate (Cooper, 2004).

Water has always played an important role in the development of southern California, and the location of the Mojave Desert between the Colorado River and coastal communities predisposed it to becoming the major thoroughfare for aqueducts, pumping stations, and canals. In 1922, California reached an agreement with the other states (with the exception of Arizona) in the Colorado River watershed basin allowing the allotment of water needed to construct the Colorado River Aqueduct (CRA). Construction of the CRA by the Metropolitan Water District (MWD) of Southern California occurred along various points simultaneously between 1934 and 1941, helping to fuel a torpid economy in the midst of the Great Depression. This massive undertaking allowed the MWD, through its contractors and subcontractors, to employ up to 10,500 people at any given time with a total employment of 35,648 over an eight-year period, making it southern California's single largest work opportunity during the Great Depression. The MWD also established better infrastructure in the desert with the grading of new roads, a water supply system, power lines, and telephone lines, leading to new towns associated with the construction of the CRA (Gruen, 1998).

Continuing into the post war era, Americans began to embrace the automobile as never before. The boom years of the 1950s and early 1960s led to a new phenomenon, the off-road vehicle. Enamored with four wheel drive, powerful engines, and large tires, a new breed of Americans sped across the California desert seeking recreation and the sense of freedom that the wide-open spaces of the desert afforded. Magazines of the era, including *Desert Magazine* and *Off Roader*, extolled the virtues of relic collecting, visiting ghost towns, and penetrating the far-flung corners of the desert that would have been virtually unthinkable only a few decades before.

In sum, Euro-American history in the study area is dominated by development of linear infrastructures (roads, aqueducts, and transmission lines), by mining, and in the past 50 years by off-road vehicle use.

The military, cattle ranchers, and the occasional farmer have left their mark on the desert, too, but to a far lesser extent. The archaeological record within the study area will generally reflect these themes and can be expected to span the last 200 years of history (Williams and Belcourt, 2014:19).

D.7.1.2.1 Segment 1: San Bernardino

Segment 1 of the Proposed Project contains seven cultural resources (Table D.7-1). These include one protohistoric ranch and six historical cultural resources. The protohistoric site, CA-SBR-2311H, is the Guachama Ranchería. The historical resources consist of a segment of the Burlington Northern Santa Fe Railroad (CA-SBR-6847H), a segment of the Southern Pacific Railroad (CA-SBR-10330H), a historic-era farm (CA-SBR-16501H), a refuse scatter (CA-SBR-17243H), and two substations (P-36-26219 and P-36-26220).

Table D.7-1. Cultural Resources Within the APE of Segment 1 – San Bernardino

Resource	Description	NRHP/CRHR Eligibility Status
P-36-2311 (CA-SBR-2311H)	Protohistoric Guachama Ranchería	Ineligible *
P-36-6847 (CA-SBR-6847H)	Burlington Northern Santa Fe Railroad	Ineligible *
P-36-10330 (CA-SBR-10330H)	Southern Pacific Railroad	Eligible
P-36-26031 (CA-SBR-16501H)	Historic-era Farm	Ineligible
P-36-26219	San Bernardino Substation	Ineligible
P-36-26220	Timoteo Substation	Ineligible
P-36-27712 (CA-SBR-17243H)	Historic-era refuse scatter	Ineligible

*For the purposes of the Proposed Project, the portion of this resource within the project APE does not contribute to the eligibility of the resource as a whole.

One site, the Southern Pacific Railroad (CA-SBR-10330H), is eligible for listing on the NRHP and CRHR. The Guachama Ranchería (CA-SBR-2311H) is a protohistoric Native American/Spanish mission outpost established in 1819. In order to determine the eligible status of CA-SBR-2311H, testing was conducted for the portion of the site within the Proposed Project APE. While the Guachama Rancheria was a significant place for California and the United States, the current condition of the resource has lost all integrity within the Proposed Project APE. The Guachama Rancheria was associated with important early missionaries; however no association with individuals important to the development of the mission System could be ascertained. No structural remains of the Guachama Rancheria were noted and very little cultural material was recovered from CA-SBR-2311H as a result of the testing program. It is unlikely that further research of the portion of the site within the Proposed Project APE will yield new or important information regarding the Guachama Rancheria. Therefore, the portion of this resource within the Proposed Project APE does not contribute to the eligibility of Guachama Rancheria for listing on the NRHP or the CRHR. Various segments of the Burlington Northern Santa Fe Railroad (CA-SBR-6847H) have been previously documented and recommended ineligible for the CRHR. Additional archival research was conducted for the segment of the Burlington Northern Santa Fe Railroad (CA-SBR-6847H) within the Proposed Project APE. The research noted that the spur is not associated with a significant event or person in national or local history; it is not architecturally significant; and additional research is unlikely to yield new or important information regarding the history of the region. Therefore, this spur is not a contributing element to the Burlington Northern Santa Fe Railroad's eligibility for listing on the NRHP or the CRHR. Owing to a lack of data potential and/or loss of integrity, the historic-era farm (CA-SBR-16501H) and historic-era refuse scatter (CA-SBR-17243H) are ineligible for listing on the NRHP or the CRHR. The two substations, P-36-26219 and P-36-26220, were constructed after 1950 and lack buildings that would qualify for listing on the NRHP or the CRHR. Therefore, due to their overall unmeritorious appearance, P-36-26219 and P-36-26220 are not eligible for listing on the NRHP or the CRHR. No further management of these six resources is required.

D.7.1.2.2 Segment 2: Colton and Loma Linda

Segment 2 of the Proposed Project contains four cultural resources (Table D.7-2). All of these resources date to the historic period, including the Gage Canal (CA-SBR-7168H), a farm (CA-SBR-11624H), a foundation (P-36-20240) and a substation (P-36-26221). It should be noted that the Gage Canal (CA-SBR-7168H) is located entirely underground within the project's APE.

The initial documentation of the Gage Canal (CA-SBR-7168H) noted that the canal retained integrity; however no recommendation was made regarding eligibility status. Segments of the canal have been updated and recommended as ineligible for the NRHP and the CRHR. Additional archival research was conducted for the segment of the Gage Canal (CA-SBR-7168H) within the Proposed Project APE. The research noted that due to extensive upgrading, no evidence of the original wood and cement structure is present anywhere within the Proposed Project APE. Therefore, the current condition of the historic canal is no longer associated with a significant event or person in national or local history; it is no longer architecturally significant; and the resource has been well-documented and further research is unlikely to yield new or important information regarding the history of water conveyance systems in the region. Therefore, the segment within the Proposed Project APE does not contribute to the eligibility of the Gage Canal for listing on the NRHP or the CRHR. Due to a lack of data potential and/or loss of integrity the historic-era farm (CA-SBR-11624) and a foundation (P-36-20240) are ineligible for listing on the NRHP or the CRHR. The Vista Substation (P-36-26221) was constructed in 1945. An architectural analysis of the buildings within the Substation noted that: none of the buildings are associated with a significant event or person in national or local history; none are architecturally significant; and none have the potential to yield new information. Therefore, the Vista Substation (P-36-26221) is not eligible for listing on the NRHP or the CRHR. No further management of these four resources is required.

Table D.7-2. Cultural Resources Within the APE of Segment 2 – Colton and Loma Linda

Resource	Description	NRHP/CRHR Eligibility Status
P-36-7168 (CA-SBR-7168H)	Historic Gage Canal	Ineligible *
P-36-11624 (CA-SBR-11624H)	Historic-era Farm	Ineligible
P-36-20240	Historic-era Foundation	Ineligible
P-36-26221	Vista Substation	Ineligible

*For the purposes of the Proposed Project, the portion of this resource within the project APE does not contribute to the eligibility of the resource as a whole.

D.7.1.2.3 Segment 3: San Timoteo Canyon

Segment 3 of the Proposed Project contains three cultural resources (Table D.7-3). All of these resources date to the historic period, including the Vanderventer Ranch (CA-RIV-2262H), a farm (P-33-13431), and a check dam (P-33-22344).

One site, the Vanderventer Ranch (CA-RIV-2262H), is eligible for listing on the NRHP and CRHR. The historic-era farm (P-33-13431) is ineligible for listing on the NRHP or the CRHR due to a lack of data potential and loss of integrity. Although the check dam (P-33-22344) is located upstream, but some distance from the ranch buildings, on property owned by Eugene Vanderventer, an important figure in San Timoteo Canyon history, no association could be made between the dam and Eugene Vanderventer's use of the property. In addition, the integrity of the dam has been compromised. Therefore, the check dam (P-33-22344) is ineligible for listing on the NRHP or the CRHR. No further management of these two resources is required.

One resource, the historic Singleton Ranch District (P-33-15004 / P-33-7296), is located within Segment 3 and Segment 4 of the Proposed Project (see Table D.7-3). This resource is eligible for listing on the NRHP and CRHR.

Table D.7-3. Cultural Resources Within the APE of Segment 3 – San Timoteo Canyon

Resource	Description	NRHP/CRHR Eligibility Status
P-33-2262 (CA-RIV-2262H)	Historic Vanderventer Ranch	Eligible
P-33-13431	Historic-era Farm	Ineligible
P-33-22344	Historic-era Check Dam	Ineligible
P-33-15004 / P-33-7296	Historic Singleton Ranch District (In Segments 3 & 4)	Eligible

D.7.1.2.4 Segment 4: Beaumont and Banning

Segment 4 of the Proposed Project contains two cultural resources (Table D.7-4) in addition to a portion of the Singleton Ranch District discussed above (see Table D.7.3). Both of these resources date to the historic period, including a refuse scatter (CA-RIV-7462) and the Smith Creek Ditch (CA-RIV-7997). Due to a lack of data potential and loss of integrity, the historic-era refuse scatter (CA-RIV-7462) is not eligible for listing on the NRHP or the CRHR. Extensive archival research and site documentation has fully realized the data potential of the Smith Creek Ditch (CA-RIV-7997) and this site is not eligible for listing on the NRHP or the CRHR. Therefore, no further management of these two resources is required.

Table D.7-4. Cultural Resources Within the APE of Segment 4 – Beaumont and Banning

Resource	Description	NRHP/CRHR Eligibility Status
P-33-13427 (CA-RIV-7462)	Historic-era refuse scatter	Ineligible
P-33-15033 (CA-RIV-7997)	Historic-era Smith Creek Ditch	Ineligible

D.7.1.2.5 Segment 5: Morongo Tribal Lands and Surrounding Areas

Segment 5 of the Proposed Project contains 29 cultural resources (Table D.7-5). These include one pre-historic site, 19 historical cultural resources, and nine isolated artifacts. The prehistoric site consists of a lithic scatter (CA-RIV-1296). The historical resources consist of the St. Boniface Indian School and Cemetery (CA-RIV-4213H), a Pedley-type dam (P-33-7870), the Millard Canyon stone canal (CA-RIV-7926), the Banning Substation (P-33-15843), the San Gorgonio Memorial Park (P-33-16898), a flume (CA-RIV-11395), and 13 historic-era refuse scatters (CA-RIV-8850, CA-RIV-11397, CA-RIV-11398, CA-RIV-11399, CA-RIV-11400, CA-RIV-11401, CA-RIV-11402, CA-RIV-11412, CA-RIV-11422, CA-RIV-11423, CA-RIV-11424, CA-RIV-11425, and CA-RIV-11427). Isolated artifacts consist of a tin lunchbox, a metate, a metal tricycle wheel and perfume bottle, a Listerine bottle, a glass bottle base, a concrete pipe fragment, and several metal cans.

One site, the historic flume (CA-RIV-11395), will not be impacted by the project and was not formally evaluated for the NRHP or the CRHR. Two sites, the Millard Canyon stone canal (CA-RIV-7926) and the St. Boniface Indian School and Cemetery (CA-RIV-4213H), have been determined eligible for listing on the NRHP and CRHR. A site visit to the prehistoric lithic scatter (CA-RIV-1296) was conducted for the Proposed Project and the crew was unable to identify any cultural material. In addition, most of the plotted location of the site had been graded during the construction of the existing structures. Given the lack of cultural material and condition of the site, the prehistoric lithic scatter (CA-RIV-1296) is not eligible for the NRHP or CRHR. Although the San Gorgonio Memorial Park (P-33-16898) is associated with the early development of the San Gorgonio area, and dates as early as the 1870s, it does not possess the qualities required for eligibility to the NRHP or CRHR. It is not associated with a significant event or person in national or local history and additional research is unlikely to yield new or important information regarding the history of the region. Therefore, the San Gorgonio Memorial Park (P-33-16898) is not eligible for the NRHP or CRHR. Regardless of the eligibility status of the San Gorgonio Memorial Park (P-33-16898), SCE will avoid

impacts to this resource during Proposed Project construction efforts. Owing to a lack of data potential and lack of association, the 13 historic-era refuse scatters (CA-RIV-8850, CA-RIV-11397, CA-RIV-11398, CA-RIV-11399, CA-RIV-11400, CA-RIV-11401, CA-RIV-11402, CA-RIV-11412, CA-RIV-11422, CA-RIV-11423, CA-RIV-11424, CA-RIV-11425, and CA-RIV-11427) are ineligible for listing on the NRHP or the CRHR. The Banning Substation (P-33-15843) was completely reconstructed in 1954 and is not associated with a significant event or person in national or local history, is not architecturally significant, and does not have the potential to yield new information. Therefore, this resource is not eligible for listing on the NRHP or the CRHR. Archival research indicated that P-33-7870 was not a Pedley-type dam. Site documentation has fully realized the data potential of the dam (P-33-7870) and this site is not eligible for listing on the NRHP or the CRHR. Isolated artifacts are not eligible for listing on the NRHP or the CRHR. Therefore, no further management of these resources is required.

Table D.7-5. Cultural Resources Within the APE of Segment 5 – Morongo Tribal Lands and Surrounding Areas

Resource	Description	NRHP/CRHR Eligibility Status
P-33-1296 (CA-RIV-1296)	Prehistoric lithic scatter	Ineligible
P-33-4213 (CA-RIV-4213H)	St. Boniface Indian School and Cemetery	Eligible
P-33-07870	Historic-era Pedley-type Dam	Ineligible
P-33-13432	Isolated artifact – tin lunch box and thermos top	Ineligible
P-33-14871 (CA-RIV-7926)	Historic Millard Canyon stone canal	Eligible
P-33-15760	Isolated artifact – metate	Ineligible
P-33-15843	Banning Substation	Ineligible
P-33-16898	San Gorgonio Memorial Park	Ineligible
P-33-16993 (CA-RIV-8850)	Historic-era refuse scatter	Ineligible
P-33-22289	Isolated artifact – metal food or oil can	Ineligible
P-33-22292	Isolated artifact – Listerine bottle	Ineligible
P-33-22293	Isolated artifact – metal tricycle wheel and perfume bottle	Ineligible
P-33-22308	Isolated artifact – concrete pipe fragment	Ineligible
P-33-22342	Isolated artifact – metal oil can	Ineligible
P-33-22343	Isolated artifact – metal oil can	Ineligible
P-33-22345 (CA-RIV-11395)	Historic-era flume	Unevaluated; will not be impacted by the project
P-33-22347 (CA-RIV-11397)	Historic-era refuse scatter	Ineligible
P-33-22348 (CA-RIV-11398)	Historic-era refuse scatter	Ineligible
P-33-22349 (CA-RIV-11399)	Historic-era refuse scatter	Ineligible
P-33-22350 (CA-RIV-11400)	Historic-era refuse scatter	Ineligible
P-33-22351 (CA-RIV-11401)	Historic-era refuse scatter	Ineligible
P-33-22352 (CA-RIV-11402)	Historic-era refuse scatter	Ineligible
P-33-22362 (CA-RIV-11412)	Historic-era refuse scatter	Ineligible
P-33-22371 (CA-RIV-11422)	Historic-era refuse scatter	Ineligible
P-33-22372 (CA-RIV-11423)	Historic-era refuse scatter	Ineligible
P-33-22373 (CA-RIV-11424)	Historic-era refuse scatter	Ineligible
P-33-22375 (CA-RIV-11427)	Historic-era refuse scatter	Ineligible
P-33-22514 (CA-RIV-11425)	Historic-era refuse scatter	Ineligible
P-33-24046	Isolated artifact – glass bottle base	Ineligible

D.7.1.2.6 Segment 6: Whitewater and Devers

Segment 6 of the Proposed Project contains 60 cultural resources (Table D.7-6). These include three prehistoric sites, 22 historical cultural resources, and 35 isolated artifacts. The prehistoric sites consist of two lithic scatters (CA-RIV-11416 and CA-RIV-11417) and one bedrock milling station (P-33-24040). The historical resources consist of the Colorado River Aqueduct (CA-RIV-6726), a foundation (CA-RIV-11414), and 20 historic-era refuse scatters (CA-RIV-9312, CA-RIV-11403, CA-RIV-11404, CA-RIV-11405, CA-RIV-11406, CA-RIV-11407, CA-RIV-11409, CA-RIV-11410, CA-RIV-11411, CA-RIV-11413, CA-RIV-11415, CA-RIV-11419, CA-RIV-11421, CA-RIV-11431, CA-RIV-11432, CA-RIV-11433, CA-RIV-11434, CA-RIV-11436, CA-RIV-11437, and CA-RIV-11814). Isolated artifacts consist of a flake, a cobble core, a USGS benchmark, a clear glass bottle, a Coca-Cola bottle, and many metal cans.

One site, the Colorado River Aqueduct (CA-RIV-6726), has been determined eligible for listing on the NRHP and CRHR. CA-RIV-11416 and CA-RIV-11417 are sparse prehistoric lithic scatters consisting of a few primary and secondary flakes and a core. A site visit was conducted for the Proposed Project and the crew documented all the lithic debris at the two sites. A shallow surface scrape was excavated at CA-RIV-11416 and no additional artifacts were identified. CA-RIV-11417 is located within a depositional environment and the potential is low for a buried deposit. These lithic scatters (CA-RIV-11416 and CA-RIV-11417) are not associated with a specific event or person important in a moment in prehistory. Although the sites have retained integrity of location and setting there is a lack of temporally or culturally diagnostic artifacts or subsurface components. Therefore, they do not have the potential to yield new information and the sites are not eligible for the NHRP or CRHR. P-33-24040 is a prehistoric bedrock milling station consisting of two faint milling slicks. No other cultural material was noted within the site boundaries. Two shallow surface scrapes were excavated near the milling slicks and no cultural materials were identified. P-33-24040 is not associated with a specific event or person important in a moment in prehistory. Although the site has retained integrity of location and setting there is a lack of temporally or culturally diagnostic artifacts or subsurface components. Therefore, it does not have the potential to yield new information and the site is not eligible for the NHRP or CRHR. Owing to a lack of data potential and lack of association, the remaining 21 historic-era sites (CA-RIV-11414, CA-RIV 9312, CA-RIV 11403, CA-RIV 11404, CA-RIV 11405, CA-RIV 11406, CA-RIV 11407, CA-RIV 11409, CA-RIV 11410, CA-RIV 11411, CA-RIV 11413, CA-RIV 11414, CA-RIV 11415, CA-RIV 11419, CA-RIV 11421, CA-RIV 11431, CA-RIV 11432, CA-RIV 11433, CA-RIV 11434, CA-RIV 11436, CA-RIV 11437, and CA-RIV 11814) are ineligible for listing on the NRHP or the CRHR. Isolated artifacts are not eligible for listing on the NRHP or the CRHR. Therefore, no further management of these resources is required.

Table D.7-6. Cultural Resources Within the APE of Segment 6 – Whitewater and Devers Resources

Resource	Description	NRHP/CRHR Eligibility Status
P-33-11265 (CA-RIV-6726)	Colorado River Aqueduct	Eligible
P-33-18123 (CA-RIV-9312)	Historic-era refuse scatter	Ineligible
P-33-19671	Isolated artifact – metal tobacco can	Ineligible
P-33-22287 (CA-RIV-11419)	Historic-era refuse scatter	Ineligible
P-33-22288	Isolated artifact – clear glass bottle	Ineligible
P-33-22290	Isolated artifact – rhyolite cobble core	Ineligible
P-33-22291	Isolated artifact – metavolcanic flake	Ineligible
P-33-22306	Isolated artifact – three metal cans	Ineligible
P-33-22307	Isolated artifact – USGS benchmark	Ineligible
P-33-22309	Isolated artifact – four metal cans	Ineligible
P-33-22310	Isolated artifact – three metal cans	Ineligible

Table D.7-6. Cultural Resources Within the APE of Segment 6 – Whitewater and Devers Resources

Resource	Description	NRHP/CRHR Eligibility Status
P-33-22311	Isolated artifact – four metal cans	Ineligible
P-33-22312	Isolated artifact – one metal can	Ineligible
P-33-22313	Isolated artifact – one metal can	Ineligible
P-33-22314	Isolated artifact – one coca-cola bottle	Ineligible
P-33-22315	Isolated artifact – one metal can	Ineligible
P-33-22316	Isolated artifact – one metal can	Ineligible
P-33-22317	Isolated artifact – one metal can	Ineligible
P-33-22318	Isolated artifact – metal popcorn tin	Ineligible
P-33-22319	Isolated artifact – one metal can	Ineligible
P-33-22320	Isolated artifact – two metal cans	Ineligible
P-33-22321	Isolated artifact – one metal can	Ineligible
P-33-22322	Isolated artifact – one metal can	Ineligible
P-33-22324	Isolated artifact – one metal can	Ineligible
P-33-22325	Isolated artifact – one metal can	Ineligible
P-33-22326	Isolated artifact – one metal can	Ineligible
P-33-22327	Isolated artifact – one metal can	Ineligible
P-33-22328	Isolated artifact – one metal oil can	Ineligible
P-33-22331	Isolated artifact – one metal can	Ineligible
P-33-22334	Isolated artifact – one metal can	Ineligible
P-33-22335	Isolated artifact – one metal can	Ineligible
P-33-22338	Isolated artifact – one metal can	Ineligible
P-33-22339	Isolated artifact – one metal can	Ineligible
P-33-22340	Isolated artifact – one metal can	Ineligible
P-33-22341	Isolated artifact – one metal can	Ineligible
P-33-22353 (CA-RIV-11403)	Historic-era refuse scatter	Ineligible
P-33-22354 (CA-RIV-11404)	Historic-era refuse scatter	Ineligible
P-33-22355 (CA-RIV-11405)	Historic-era refuse scatter	Ineligible
P-33-22356 (CA-RIV-11406)	Historic-era refuse scatter	Ineligible
P-33-22357 (CA-RIV-11407)	Historic-era refuse scatter	Ineligible
P-33-22359 (CA-RIV-11409)	Historic-era refuse scatter	Ineligible
P-33-22360 (CA-RIV-11410)	Historic-era refuse scatter	Ineligible
P-33-22361 (CA-RIV-11411)	Historic-era refuse scatter	Ineligible
P-33-22363 (CA-RIV-11413)	Historic-era refuse scatter	Ineligible
P-33-22364 (CA-RIV-11414)	Historic-era foundation	Ineligible
P-33-22365 (CA-RIV-11415)	Historic-era refuse scatter	Ineligible
P-33-22366 (CA-RIV-11416)	Prehistoric lithic scatter	Ineligible
P-33-22367 (CA-RIV-11417)	Prehistoric lithic scatter	Ineligible
P-33-22370 (CA-RIV-11421)	Historic-era refuse scatter	Ineligible
P-33-22379 (CA-RIV-11431)	Historic-era refuse scatter	Ineligible
P-33-22380 (CA-RIV-11432)	Historic-era refuse scatter	Ineligible
P-33-22381 (CA-RIV-11433)	Historic-era refuse scatter	Ineligible
P-33-22382 (CA-RIV-11434)	Historic-era refuse scatter	Ineligible
P-33-22384 (CA-RIV-11436)	Historic-era refuse scatter	Ineligible
P-33-22385 (CA-RIV-11437)	Historic-era refuse scatter	Ineligible

Table D.7-6. Cultural Resources Within the APE of Segment 6 – Whitewater and Devers Resources

Resource	Description	NRHP/CRHR Eligibility Status
P-33-24039 (CA-RIV-11814)	Historic-era refuse scatter	Ineligible
P-33-24040	Prehistoric bedrock milling station	Ineligible
P-33-24043	Isolated artifact – one metal can	Ineligible
P-33-24044	Isolated artifact – one metal can	Ineligible
P-33-24045	Isolated artifact – one metal can	Ineligible

D.7.1.2.7 Multiple Segments and Lines

Five cultural resources are located within multiple segments and lines (Table D.7-7). All of these resources date to the historic period and consist of the Southern Pacific Railroad (CA-RIV-6381H), San Timoteo Canyon Road (CA-RIV-8189), the Memphis 12 kV Distribution Line (P-33-23484), the Devers-Vista 220 kV Transmission Line (P-33-22389/P-36-36050), and the Hayfield-Chino 220 kV Transmission Line (P-33-15035/P-36-26051).

One site, Southern Pacific Railroad (CA-RIV-6381H), is eligible for listing on the NRHP and the CRHR. Although associated with early ranching and farming in the San Timoteo Canyon area dating as early as the 1840s, due to realignment and consistent maintenance, San Timoteo Canyon Road (CA-RIV-8189) no longer possesses the integrity or qualities required for eligibility to the NRHP or CRHR. In addition, it is not associated with a significant event or person in national or local history and additional research is unlikely to yield new or important information. Therefore, San Timoteo Canyon Road (CA-RIV-8189) is not eligible for the NRHP or CRHR. The Memphis 12 kV Distribution Line (P-33-23484) and the Devers-Vista 220 kV Transmission Line (P-33-22389/P-36-36050) were constructed in 1966 and 1970, respectively, and are not associated with a significant event or person in national or local history, are not architecturally significant, and do not have the potential to yield new information. Therefore, these two transmission lines are not eligible for listing on the NRHP or the CRHR. The Hayfield-Chino 220 kV Transmission Line (P-33-15035/P-36-26051) was constructed between 1945 and 1946; however, the majority of the line was removed and/or rebuilt in the 1970s. This transmission line is not associated with a significant event or person in national or local history, is not architecturally significant, and does not have the potential to yield new information. Therefore, this resource is not eligible for listing on the NRHP or the CRHR. No further management of these four resources is required.

Table D.7-7. Cultural Resources Within Multiple Segments and Lines

Resource	Description	NRHP/CRHR Eligibility Status
P-33-9498 (CA-RIV-6381H)	Southern Pacific Railroad	Eligible
P-33-15035 / P-36-26051	Hayfield-Chino 220 kV transmission Line	Ineligible
P-33-15720 (CA-RIV-8189)	San Timoteo Canyon Road	Ineligible
P-33-22389 / P-36-36050	Devers-Vista 220 kV transmission line	Ineligible
P-33-23484	Memphis 12 kV distribution line	Ineligible

D.7.1.2.8 Temporary Staging Yards

One of the Temporary Staging Yards, Hathaway 2 Yard, for the Proposed Project contains two cultural resources (Table D.7-8). Both of these resources date to the historic period and consist of refuse scatters (CA-RIV-11439 and CA-RIV-11440). These resources are not eligible for listing on the NRHP or the CRHR due to a lack of data potential and lack of association. Therefore, no further management of these two resources is required.

Table D.7-8. Cultural Resources Within the Temporary Staging Yards (Hathaway 2 Yard)

Resource	Description	NRHP/CRHR Eligibility Status
P-33-22387 (CA-RIV-11439)	Historic-era refuse scatter	Ineligible
P-33-22388 (CA-RIV-11440)	Historic-era refuse scatter	Ineligible

D.7.1.2.9 Telecommunication Lines

The Telecommunication route of the Proposed Project contains two cultural resources (Table D.7-9). These include a historic road segment (First Street; P-33-20721), and an isolated glass bottle neck (P-33-12643).

First Street (P-33-20721) is noted on a 1950s USGS quadrangle map; however, it does not possess the integrity or qualities required for eligibility to the NRHP or CRHR. It is not associated with a significant event or person in national or local history and additional research is unlikely to yield new or important information regarding the region. Therefore, First Street (P-33-20721) is not eligible for the NRHP or CRHR. Isolated artifacts are not eligible for listing on the NRHP or the CRHR. Therefore, no further management of these resources is required.

Table D.7-9. Cultural Resources Within the Telecommunication Route

Resource	Description	NRHP/CRHR Eligibility Status
P-33-12643	Isolated artifact – amethyst glass bottle neck	Ineligible
P-33-20721	First Street	Ineligible

D.7.1.2.10 Subtransmission Lines

The Subtransmission route of the Proposed Project contains two cultural resources (Table D.7-10). Both of these resources date to the historic period and consist of the San Bernardino–Redlands-Timoteo and San Bernardino–Redlands-Tennessee 66 kV Lines (P-36-26224) and isolated glass fragments (P-36-26030).

The San Bernardino–Redlands-Timoteo and San Bernardino–Redlands-Tennessee 66 kV Lines (P-36-26224) were constructed between 1966 and 1967 and are not associated with a significant event or person in national or local history, are not architecturally significant, and do not have the potential to yield new information. Therefore, the San Bernardino–Redlands-Timoteo and San Bernardino–Redlands-Tennessee 66 kV Lines (P-36-26224) is not eligible for listing on the NRHP or the CRHR. Isolated artifacts are not eligible for listing on the NRHP or the CRHR. No further management of these resources is required.

Table D.7-10. Cultural Resources Within the Subtransmission Route

Resource	Description	NRHP/CRHR Eligibility Status
P-36-26030	Isolated artifact – three glass fragments	Ineligible
P-36-26224	San Bernardino–Redlands-Timoteo and San Bernardino–Redlands-Tennessee 66 kV Lines	Ineligible

D.7.1.2.11 Substations

The Substation site of the Proposed Project contains one cultural resource, the Tennessee Substation (P-36-26222). This substation was constructed in 1966 and is not associated with a significant event or person in national or local history, is not architecturally significant, and does not have the potential to yield new information. Therefore, the Tennessee Substation (P-36-26222) is not eligible for listing on the NRHP or the CRHR. No further management of this resource is required.

D.7.1.3 Environmental Setting for Connected Actions

Desert Center Area. The prehistoric, ethnographic, and historic background within the Desert Center area is has been summarized from the Desert Harvest Solar Project Final EIS and Proposed CDCA Plan Amendment (BLM, 2012:3.6-11–3.6-30) as follows:

Prehistoric Background. The Chuckwalla Valley was a relatively closed resource exploitation zone. It served as an east-west oriented trade route/corridor between the Pacific Ocean and the Colorado River/ greater Southwest. An extensive network of trails is present within the Chuckwalla Valley. Given its orientation and location, the valley may have been neutral territory (i.e., a buffer zone), unclaimed by neighboring native peoples.

Within the Chuckwalla Valley, prehistoric sites are clustered around springs, wells, and other obvious important features/resources. Sites include villages with cemeteries, occupation sites with and without pottery, large and small concentrations of ceramic sherds and flaked stone tools, rock art sites, rock shelters with perishable items, rock rings/stone circles, geoglyphs, and cleared areas, a vast network of trails, markers and shrines, and quarry sites.

A cluster of temporary habitation and special activity (task) sites occurs around a quarry workshop in the Chuckwalla Valley. During the Holocene, the Chuckwalla Valley most likely was occupied, abandoned, and reoccupied by a succession of ethnic groups. In the Early Holocene (i.e., Lake Mohave complex times), the area may have been relatively densely inhabited. During the Middle Holocene (i.e., Pinto and Gypsum complexes period) it may only have been sporadically visited. The subsequent Late Holocene Rose Spring and Late Prehistoric periods probably witnessed reoccupation of the valley by Yuman and Numic-speaking peoples.

Ethnographic Background. A number of ethnographically documented culture groups are associated with the Chuckwalla Valley through historical use and oral history. These include the Cahuilla, Serrano, Chemehuevi, Mohave, Quechan (Yuma), Maricopa, and Halchidoma. All of these groups were at home in the deserts, but lived primarily near reliable water sources including the Colorado River, inland lakes, and numerous seeps and springs.

Research covering the ethnographic period for this region suggests a fluidity in territorial boundaries over time. In general, this fluidity is represented in the use, abandonment, intrusion, and displacement of the people along the Colorado River, in particular. Further, much of this shifting in territories and boundaries during the ethnographic period can be attributed to intertribal warfare. Such activities may have fluctuated between territorial controls of the local resources to a joint-use model where multiple groups may have had varying levels of access to those resources.

Historic Background. Sixteenth-century maritime Spanish explorer Hernando de Alarcon made the first in-roads into the region in 1540, ascending 85 miles up the Colorado River to the head of navigation near present-day Yuma. Nearly seventy years later, Francisco Garcés (a Franciscan Padre) also seeking a route to the coast, forded the Colorado River at the mouth of the Gila River, traveling west through the desert before despairing and turning back. His efforts were eventually rewarded in March 1774, arriving at Mission San Gabriel, accompanying the expedition of Captain Juan Bautista de Anza. Jose Maria Romero, a Mexican Army captain, explored a second route between 1823 and 1826, along the indigenous Halchidhoma Trail. He had learned of this route a couple of years earlier when a group of Cocomaricopa Indians from Arizona arrived at Mission San Gabriel, having reportedly crossed the Colorado River near present-day Blythe, journeying westward through the Chuckwalla Valley and over the San Gorgonio Pass. Other historic activities in the area include transportation and establishing railroads and highways across

the Chuckwalla Valley; construction of the Colorado River Aqueduct in the 1930s; small-scale mining of gold, silver, lead, copper, uranium, fluorite, and manganese; and establishment of the Desert Training Center/California-Arizona Maneuver Area (DTC/C-AMA) for military exercises during World War II.

Known Resources. Dozens of cultural resources have been previously documented within the Chuckwalla Valley and Desert Center area. More than 50 of these resources are eligible for the NRHP/CRHR. These resources consist of prehistoric sites (i.e., lithic scatters, potdrops, habitation sites, rock rings, trails, reductions stations, milling stations, districts [quarry and petroglyph], and isolated artifacts), historic-era sites (i.e., refuse scatters, DTC sites, prospecting areas, and isolated artifacts), and built environment resources (i.e., road segments, transmission lines, structures, and railroads). In addition, many NRHP/CRHR eligible traditional cultural properties (TCPs) are known to be in the Desert Center area.

Blythe Area. The prehistoric, ethnographic, and historic background within the Blythe Area is presented in the Blythe Mesa Solar Project Draft Environmental Impact Report/Environmental Assessment (BLM, 2014: Vol. 1, 3-77–3-84) and is summarized as follows:

Prehistoric Background. Native American occupation of the Colorado Desert can be divided into three cultural periods: Paleoindian Period (San Dieguito) (ca. 12,000–7000 years before present (B.P.); Archaic Period (Pinto and Amargosa) (ca 7000—1500 B.P.); and, Late Prehistoric (Patayan Complex) (1,500 to 150 BP), which ended in the ethnographic period.

The Paleoindian inhabitants were nomadic large-game hunters whose tool assemblage included choppers; percussion-flaked scrapers and knives; large, well-made, fluted, leaf-shaped, or stemmed projectile points (e.g., Lake Mojave, Silver Lake); crescents; heavy core/cobble tools; hammerstones; bifacial cores; and scraper planes. The subsistence strategy used during the San Dieguito period focused primarily on hunting both large and small game as well as gathering plants throughout the seasons. Near the end of this period the climate began to warm, which caused the lakes and marshes to dry, resulting in the need for different subsistence and settlement strategies.

Late Archaic site types include residential bases with large, diverse artifact assemblages, abundant faunal remains, and cultural features; temporary bases; temporary camps; and task-specific activity areas. Diagnostic projectile points of this period include more refined notched (Elko), concave base (Humboldt), and small-stemmed (Gypsum) forms. The mortar and pestle were used to process acorns, an important storable resource. *Haliotis* and *Olivella* shell beads and ornaments and split-twig animal figurines indicate that interior California occupants were in contact with populations on the California coast and in the southern Great Basin.

The Patayan Complex is marked by strong regional cultural development relative to the economic system and settlement patterns. In the Southern California desert regions, cultural development was heavily influenced by the Patayan culture of the lower Colorado River area. This period includes a pre-ceramic transitional phase ranging between 1,500 and 1,200 years BP. The Patayan complex is distinguished from the transitional phase by the introduction of pottery using the paddle-and-anvil technique as well as the use of bow-and-arrow technology. Also noted is the use of floodplain agriculture. Diagnostic artifacts include Saratoga Springs projectile points, small triangular projectile points, mortars and pestles, steatite ornaments and containers, perforated stones, circular shell fishhooks, numerous and varied bone tools, and bone and shell ornaments. Elaborate mortuary customs and extensive trade networks are also characteristic of this period.

Ethnographic and Historic Background. The ethnographic and historic background of the Blythe area is similar to that of the Desert Center area (see above).

Known Resources. Dozens of cultural resources have been previously documented within the Blythe area. However, only a few of these resources are eligible for the NRHP/CRHR. Resources in the area consist of prehistoric sites (i.e., lithic scatters, ceramic scatters, rock rings, trails, and isolated artifacts), historic-era sites (i.e., refuse scatters, Desert Training Center sites, and prospecting areas), and built environment resources (i.e., road segments and transmission lines).

D.7.2 Applicable Regulations, Plans, and Standards

D.7.2.1 Federal

National Environmental Policy Act. The National Environmental Policy Act (NEPA) of 1969, as amended, requires analysis of potential environmental impacts to important historic, cultural, and natural aspects of our national heritage (42 U.S.C. §§ 4321-4375; 40 C.F.R. §§ 1500-1508). The discussion of impacts pursuant to NEPA is defined by the Council on Environmental Quality (CEQ) regulations and requires consideration of the temporal scale, spatial extent, and intensity of the change that would be introduced by the Proposed Project.

National Historic Preservation Act. The Federal Government has developed laws and regulations designed to protect cultural resources that may be affected by actions undertaken, regulated, or funded by federal agencies. Under the National Historic Preservation Act (NHPA) of 1966 the Proposed Project is considered a federally licensed "undertaking" per 36 CFR § 800.2 (o) and subject to compliance with Section 106 of the NHPA of 1966, as amended. Under these guidelines, federal agencies are required to identify cultural resources that may be affected by project actions, assess the significance of these resources and their eligibility for inclusion on the *National Register of Historic Places* (NRHP) as per 16 USC 470w (5), and consult with the Advisory Council on Historic Preservation (ACHP) regarding project effects on significant resources. Eligibility is based on criteria defined by the Department of the Interior. Generally, districts, archaeological sites, buildings, structures, and objects that possess integrity are potentially eligible for inclusion on the NRHP under the following criteria:

A) that are associated with events that have made a significant contribution to the broad patterns of our history; or

B) that are associated with the lives of persons significant in our past; or

C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR § 60.4).

If a cultural resource is determined to be an eligible historic property under 36 CFR § 60.4, then Section 106 requires that the effects of the proposed undertaking be assessed and considered in planning the undertaking. According to 36 CFR § 800: Regulations of the Advisory Council on Historic Preservation Governing the Section 106 Review Process, the lead agency, State Historic Preservation Office (SHPO), and Council

> *….should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties. …When an undertaking may affect properties of historic value to an Indian tribe on non-Indian lands, the consulting parties shall afford such tribe the opportunity to participate as interested persons. Traditional cultural leaders and other Native Americans are considered interested persons with respect to undertakings that my affect historic properties of significance to such persons (36 CFR § 800:3).*

Native American Graves Protection and Repatriation Act. The Native American Graves Protection and Repatriation Act (NAGPRA) was enacted on November 16, 1990, to address the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to Native American cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA assigned implementation responsibilities to the Secretary of the Interior.

If human remains are encountered on Federal lands, NAGPRA states that the responsible Federal official must be notified immediately and that no further disturbance shall occur in the area until clearance is given by the responsible Federal official (43 C.F.R. § 10.4). If the remains are determined to be Native American Indian, the Federal agency will then notify the appropriate federally recognized Native American tribe and initiate consultation.

Archeological Resources Protection Act. If federal or Indian lands are involved, the Archeological Resources Protection Act (ARPA) may impose additional requirements on an agency. ARPA: (1) Prohibits unauthorized excavation on federal and Indian lands; (2) Establishes standards for permissible excavation; (3) Prescribes civil and criminal penalties; (4) Requires agencies to identify archeological sites; and (5) Encourages cooperation between federal agencies and private individuals.

Antiquities Act of 1906. The Antiquities Act of 1906 states, in part: That any person who shall appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court.

Bureau of Land Management Resource Management Plans. The BLM's multiple-use mission, set forth in the Federal Land Policy and Management Act of 1976, mandates that BLM manage public land resources for a variety of uses, including natural, cultural, and historical resources. The BLM uses Resource Management Plans to guide the development, conservation, and use of BLM public lands in California. The issues addressed in these plans include but are not limited to cultural resources, Native American values, wildlife, vegetation, wilderness, recreation geology, minerals, and energy production and utility corridors. There are several Resource Management Plans that are applicable to the regional study area for the APE/project study area, including the following:

- California Desert Conservation Area (CDCA) Plan;
- Coachella Valley/CDCA Plan Amendment; and
- South Coast Resource Management Plan.

The CDCA Plan provides guidance for 25 million acres, nearly half of which are in BLM jurisdiction, encompassing the conservation area in the counties of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, and San Bernardino. The energy production and utility corridors element objectives of the existing plan include implementing a network of joint-use planning corridors to meet projected utility needs, to avoid sensitive resources wherever possible, and to consider alternative fuel resources. Cultural Resources objectives include ensuring that cultural resources are given full consideration in land use planning and management decisions, ensuring that BLM authorized actions avoid inadvertent impacts to cultural resources, and ensuring proper data recovery of significant cultural resources where adverse impacts cannot be avoided.

Recent refinements to the CDCA plan were made through six regional amendments, including the Coachella Valley amendment. The Coachella Valley/CDCA Plan Amendment (December 2002) primarily addresses

habitat conservation, wild and scenic river eligibility, standards and guidelines for land health, and designation of routes of travel. On September 23, 2011, the BLM released for public comment a Draft South Coast Resource Management Plan (RMP) Revision and Draft Environmental Impact Statement (EIS). This public comment period ended December 23, 2011. The South Coast Draft RMP provides guidance for the management of approximately 300,000 acres of BLM-administered public lands in portions of five southern California counties: San Diego, Riverside, San Bernardino, Orange, and Los Angeles. These public lands include over 130,000 acres of BLM-administered surface lands and 167,000 acres of Federal mineral ownership where the surface is privately owned. The Draft RMP/EIS is a revision to the existing South Coast RMP (1994). An updated plan has not yet been approved.

D.7.2.2 State

California Environmental Quality Act. Cultural resource management work conducted as part of the Proposed Project is to comply with the California Environmental Quality Act (CEQA) Statute and Guidelines, which direct lead agencies to first determine whether cultural resources are "historically significant" resources. CEQA requires that impacts that a project may have on cultural resources be assessed and requires mitigation if significant (or "unique") cultural resources are to be impacted (Section 21083.2 [a-1] and CEQA Guidelines Appendix G). Generally, a cultural resource is considered "historically significant" if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets the requirements for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria:

1. *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
2. *Is associated with the lives of persons important in our past;*
3. *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,*
4. *Has yielded, or may be likely to yield, information important in prehistory or history (Title 14 CCR, § 15064.5).*

The statutes and guidelines specify how cultural resources are to be managed in the context of projects, such as the Proposed Project. Briefly, archival and field surveys must be conducted, and identified cultural resources must be inventoried and evaluated in prescribed ways. Prehistoric and historical archaeological resources, as well as historical resources such as standing structures and other built-environment features, deemed "historically significant" must be considered in project planning and development. As well, any proposed project that may affect "historically significant" cultural resources must be submitted to the SHPO for review and comment prior to project approval by the responsible agency and prior to construction.

If a Lead Agency determines that an archaeological site is a historical resource, the provisions of California Public Resources Code (CPRC) §21084.1 and CEQA Guidelines §15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site is to be treated in accordance with the provisions of PRC §21083 regarding unique archaeological resources. The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of a project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines §15064[c][4]).

CEQA Guidelines Section 15064.5(e) and Assembly Bill 2641 are to be followed. These require that all construction activities cease immediately and the County Coroner and a qualified archaeologist must be notified. If the coroner determines the remains the Native American Heritage Commission (NAHC) must be notified.

Public Resources Code Sections 15064.5(e) and 15064.5(d), et seq. If human remains of any kind are found during construction activities on non-federal or reservation land, these codes require that excavation activities be stopped and that the county coroner be called in to assess the remains. The coroner will examine the remains and determine the next appropriate action based on his or her findings. If the county coroner determines that the remains to be of Native American origin, the Native American Heritage Commission (NAHC) must be contacted by the coroner within 24 hours. The NAHC will then identify a most-likely descendant to be consulted regarding treatment and/or reburial of the remains.

Native American Heritage Commission. Section 5097.91 of the California Public Resources Code established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the CPRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

D.7.2.3 Local

The CPUC has jurisdiction over the siting and design of the Proposed Project because the CPUC regulates and authorizes the construction of investor-owned public utility (IOU) facilities. Although such projects are exempt from local land use and zoning regulations and permitting, General Order (GO) No. 131-D, Section III.C requires "the utility to communicate with, and obtain the input of, local authorities regarding land-use matters and obtain any nondiscretionary local permits."

Banning. The City of Banning General Plan notes that there are a number of historic and archaeological sites of cultural importance within the General Plan Study Area (City of Banning, 2006). The General Plan also states that the potential exists for discovering additional sites in the future, primarily in the northerly portion of the General Plan Study Area near the Banning Water Canyon. The General Plan also states that continued development associated with build out of the General Plan could result in disturbance or destruction of cultural resources due to grading, site excavation, construction, and increased foot and vehicular traffic.

The APE/project study area crosses areas identified by the City as having sensitivities for cultural resources ranging from "low" to "moderate" to "high" (Ibid.) In order to reduce project-related cumulative impacts, the goals, policies and programs of the General Plan are directed toward the protection and preservation of cultural resources within the City. The General Plan restricts development in areas that are potentially highly sensitive to cultural resources such as in the canyons, washes and alluvial fans in the northerly portions of the City. It also encourages the continued development of programs by the City and private organizations for the identification, designation, and preservation of important cultural resources within the boundaries of the City.

The City requires cultural resources surveys and studies for projects, except single-family dwellings on existing lots of record, that have the potential to disturb or destroy sensitive resources. The City through its General Plan ensures that every reasonable effort is made to manage cultural resources within its jurisdiction. It has established the Banning Historical Society and the Historic Site Preservation Board. The City also plans to prepare a historic preservation plan. Further, the City will not allow development that would have adverse impacts on locally or regionally known important resources within or outside the General Plan area. The General Plan states that, by adopting and following the policies and programs contained within its General Plan, no significant cumulative impacts associated with cultural resources will occur.

Beaumont. In order to preserve and protect the City of Beaumont's cultural resources, Goal 5 of the City's General Plan states that the City of Beaumont will participate in cultural resources management and/or preservation efforts (City Beaumont, 2007). In order to meet this goal, the Cultural Resource Management section of the City's General Plan states: "…should archaeological or paleontological resources be encountered during excavation and grading activities, all work would cease until appropriate salvage measures are established. Appendix G of the CEQA Guidelines shall be followed for excavation monitoring and salvage work that may be necessary. Salvage and preservation efforts will be undertaken pursuant to Appendix G requirements outlined in CEQA."

The General Plan also states that following the Plan's policies and complying with existing State and Federal guidelines when engaged in development projects within the City will reduce potential cultural (paleontological, prehistoric, and historic) resource impacts to a less than significant level.

Calimesa. According to the General Plan of the City of Calimesa, areas with high sensitivity for archaeological and paleontological resources, such as the San Timoteo Badlands, shall be subject to an in-depth review through the provisions of special studies focusing on resource sensitivity (City of Calimesa, 1994). The studies shall include feasible measures to protect and preserve the resource.

Goal 4 of the City's General Plan states that the City shall promote cultural awareness through preservation of the City's historical, archaeological, and paleontological resources. Policies 4.1 to 4.3 were developed to meet this goal. See Table D.7-11 (Local Land Use Documents Applicable to Cultural Resources for the Proposed Project).

The Cultural Awareness Program of the City, contained within the General Plan, requires that development in areas that have not been subject to prior cultural resource surveys shall be required to perform surveys and submit their findings to the City. When resources are identified, appropriate testing, preservation, mitigation, or salvage shall be carried out prior to grading or excavation activities. The City shall use these surveys to refine its cultural resources map. The map shall be used as a guide for requiring future surveys and studies as part of proposed development or redevelopment.

The Cultural Awareness Program of the City also requires that qualified archaeologists and paleontologists be present during the excavation of sites that have a high potential for archaeological or paleontological resources. Removal of fossils, Native American remains, or archaeological artifacts shall occur in compliance with State regulations. The City shall consider prohibiting development when impacts to cultural resources cannot be mitigated. It shall set up a procedure by which uncovered archaeological and paleontological resources would be removed and transferred for preservation at a local educational and scientific facility for research or display.

Colton. The General Plan of the City of Colton is currently being updated (1987). At present, the City does not have an estimated time of approval on its amended general plan (City of Colton Planning Department, 2013). The City's Historic Preservation Ordinance was developed to address Government Code Sections 37361 and 25373 that recognize the value of identifying, protecting, and preserving places, buildings, structures, and other objects of historical, aesthetic, and cultural importance. In order to protect and preserve these resources, the ordinance calls for the adoption of reasonable and fair regulations to recognize, document, preserve, and maintain resources of cultural, aesthetic, or historical significance. The General Plan also states that these regulations will serve to integrate the preservation of resources and the extraction of relevant data from such resources into public and private land management and development processes, and to identify as early as possible and resolve conflicts between the preservation of cultural resources and alternative land uses. The Cultural Resources Preservation Element, adopted by the City in September 2000, states similar goals and policies of (1) identify, protect, and preserve Colton's

rich archaeological resources for the enjoyment of future generations; (2) identify, designate and preserve specific historically significant structures, landscapes and facilities; and (3) educate the public about Colton's heritage and resources (City of Colton, 2000).

Grand Terrace. The General Plan of the City of Grand Terrace states that there are a number of sites within the City that have been recorded as containing cultural resources (City of Grand Terrace, 2010). However, there are no known areas of the City that have been previously identified as places of historical, cultural, or archaeological significance that should be identified as being significant enough to be preserved as open space. Nonetheless, the City recognizes that important information may still be contained within the known cultural resource sites and sites that have not yet been discovered.

Loma Linda. The General Plan of the City of Loma Linda states that there are no recorded prehistoric sites within the General Plan Study area; however, the Guachama Rancheria is an important historically known Native American property within the Loma Linda Planning Area with a potential for associated prehistoric resources (City of Loma Linda, 2009).

The Loma Linda Planning Area includes many sites of historic value and the area has been the subject of many historic studies with the latest conducted in 1988. The 1988 study identified a total of 197 historical properties within the General Plan Area; however, only 22 were evaluated for potential eligibility for listing in the NRHP (Ibid.). The 1988 study also identified four potential Historic Districts. The General Plan states that it is likely that additional contributing features along with buildings will be identified once a more up to date historic resources study is completed.

The Conservation and Open Space Element of the General Plan of the City of Loma Linda states that the City shall "preserve and protect the City's historic structures and neighborhoods. Identify and preserve the archaeological and paleontological resources in Loma Linda."

Palm Springs. The General Plan of the City of Palm Springs Recreation, Open Space, and Conservation Element recognizes that culture and history are integral to the Palm Springs community (City of Palm Springs, 2007). The Recreation, Open Space, and Conservation Element calls for the preservation of archaeological, cultural, and historic resources within the community. The General Plan contains maps showing areas likely to have prehistoric or historic cultural resources within the City and its Sphere of Influence. The General Plan requires site assessments for projects in these mapped areas.

Redlands. The General Plan of the City of Redlands recognizes that many archaeological and paleontological resources will occur in the remaining, unexcavated open space areas within and adjacent to the City (City of Redlands, 1997). As such, the City recognizes the need to conserve these resources through City Policies.

The General Plan states that the San Bernardino Archaeological Information Center (SBAIC) estimates that less than 10 percent of the urban area has been surveyed for archaeological finds, and perhaps 25 percent of the rural portions of the planning area have been surveyed. In addition, the General Plan states that the locations of some resources are known. To allow a quick visual scan of potentially sensitive areas, however, the City and the SBAIC prepared an archaeological resource sensitivity map at a general scale.

San Bernardino. The General Plan of the City of San Bernardino recognizes that the City contains many historic and archaeological resources that may be threatened with demolition or removal (City of San Bernardino, 2005). As such, the City recognizes the need to conserve these resources through City policies, which provide guidance that addresses the preservation and reuse of the City's historic and archaeological resources. It is the City's intent to effectively preserve, enhance, and maintain sites and structures that have been deemed architecturally, historically, archaeologically, and/or culturally significant.

The General Plan includes information providing a historical background of City events based on a report prepared for the General Plan. The report contains a detailed history of San Bernardino, a detailed description of incentives for preservation, a glossary of terms, and a list of source documents.

As stated in the City's General Plan, the City desires to enjoy the social benefits of historic preservation that come in the form of increased community pride; realize a recognizable identity for San Bernardino that comes from a popular interest in the community's past; create a rich cultural community in which we will be able experience the City's past; enhance property values and increase economic and financial benefits in the older parts of our City; and create a unique environment that attracts investments and visitors through historic preservation, adaptive reuse, and compatible design controls.

Yucaipa. Cultural resources are addressed in the Open Space and Conservation Element of the City's General Plan (City of Yucaipa, 2004). The General Plan goals, policies, and actions support records searches and reviews, field surveys and evaluations, and avoidance of, or mitigation for, impacts to important cultural resources.

County of Riverside. The General Plan of the County of Riverside follows both Federal and State laws and guidelines for the definition of significance and sensitivity of cultural resources. According to the General Plan of the County of Riverside, cultural resources consist of places (historic and prehistoric archaeological sites), structures, or objects that provide evidence of past human activity. They are important for scientific, historic, and/or religious reasons to cultures, communities, groups, or individuals. The cultural history of Riverside County is divided into three general chronological units—prehistory, ethnohistory, and history—the last two of which overlap in the early years of the historical period. The first two divisions are restricted to Native American traditions, beginning with the settlement of the southern California region 10,000 to 12,000 years ago and extending through time to initial Euro-American settlement in the late 18th century when the mission system was established. The historic era begins around 1774 with the exploratory expeditions of Juan Bautista de Anza and continues into 1967, or 45 years before the present as defined by CEQA.

The General Plan contains a map figure depicting the relative sensitivity of the diverse landscapes of Riverside County for cultural resources. Three classifications are used: high, undetermined, and low. Properties with high potential include those listed or determined eligible for listing in the NRHP. The General Plan also contains tables that list each of the NRHP-eligible resources within the County. These maps and tables are useful in the early planning stages of projects to give planners and developers an initial sensitivity for an area.

In order to protect cultural resources within the County, the General Plan contains several policies and mitigation measures that relate to cultural resources. Table D.7-11 (Local Land Use Documents Applicable to Cultural Resources for the Proposed Project) summarizes elements of local land use documents that have policies applicable to cultural resources.

County of San Bernardino. The General Plan of the County of San Bernardino states that there are currently almost 12,000 known cultural resources within the County, and there are large areas that have never been surveyed or assessed for cultural resources. The General Plan states that there are likely an equal number of sites that have yet to be identified and could be affected by future development. The sites within the County include historic roads, trails, bridges, and buildings; historic engineering features; Native American villages, temporary camp sites, rock shelters, milling stations, lithic scatters, quarry sites, pottery scatters, cemeteries, cremation sites, petroglyphs, and pictographs, among other site types.

Table D.7-11. Local Land Use Documents Applicable to Cultural Resources for the Proposed Project

Document	Plans, Policies, Programs
City of Banning General Plan Archaeological and Cultural Resources Element	**Goal:** Documentation, maintenance, preservation, conservation and enhancement of archaeological and historic sites, artifacts, traditions and other elements of the City's cultural heritage.
City of Beaumont General Plan Resource Management Element	**Goal 5:** The City of Beaumont will participate in cultural resource management and/or preservation efforts. **Policy 15.** The City of Beaumont will identify and preserve those sites/buildings that are important to the community for the benefit of the future generations that will reside or work in the City. **Policy 16.** The City of Beaumont will prepare an inventory of private community and environmental organizations that may contribute effort or resources to improving the City's cultural awareness.
City of Calimesa General Plan Resource Management Element	**Goal 4:** Promote cultural awareness through preservation of the City's historical, archaeological and paleontological resources. **Policy 4.1:** Identify, protect and preserve, where possible, the historical resources of the City. **Policy 4.2:** Increase public awareness of California's cultural heritage and resources through education. **Policy 4.3:** Require the preservation of identified cultural resources to the extent possible, prior to new development, through dedication, removal, transfer, reuse, or other means.
City of Colton Cultural Resources Preservation Element	**Goal 1:** Identify, protect, and preserve Colton's rich archaeological resources for the enjoyment of future generations. **Goal 2:** Identify, designate, and preserve specific historically significant structure, landscapes, and facilities. **Goal 3:** Educate the public about Colton's heritage and resources.
City of Grand Terrace General Plan Open Space and Conservation Element	**Goal 4.9:** Comply with State and Federal regulations to ensure the protection of historical, archaeological, and paleontological resources. **Goal 4.9** of the General Plan states that Grand Terrace will "Comply with State and Federal regulations to ensure the protection of historical, archaeological, and paleontological resources." **Policy 4.9.1** was developed to implement Goal 4.9 and it states: "The City shall take reasonable steps to ensure that cultural resources are located, identified and evaluated to assure that appropriate action is taken as to the disposition of these resources. *a. Applicants with development proposals on sites that occur within areas which are determined through initial evaluation to be potentially significant shall submit results of a records such conducted by the San Bernardino Archaeological Information Center at the San Bernardino County Museum or other appropriate agency, for comment during initial environmental review in accordance with the notice and comment provisions applicable to responsible agencies under CEQA.* *b. For areas with documented or inferred resource presence, applicants shall provide studies to document the presence or absences of cultural resources. Such studies shall provide a detailed mitigation plan, including and monitoring program and recovery or preservation plan, based on the recommendations of a qualified archaeologist and/or paleontologist.* *c. In the event that a paleontological or archaeological resource is uncovered during the course of construction, ground-disturbing activities in the vicinity of the suspected resource shall be redirected until the nature and extent of the find can be evaluated by a qualified archaeologist and/or paleontologist (as determined by the City). As deemed appropriate by the City, any such resource uncovered during the course of project-related grading or construction shall be recorded and/or removed per applicable City and/or State regulations.*
City of Loma Linda Conservation and Open Space Element	**Goal:** The City shall preserve and protect the City's historic structures and neighborhoods. Identify and preserve the archaeological and paleontological resources in Loma Linda.

Table D.7-11. Local Land Use Documents Applicable to Cultural Resources for the Proposed Project

Document	Plans, Policies, Programs
City of Palm Springs General Plan Recreation, Open Space, and Conservation Element	**Goal RC10:** Support, encourage, and facilitate the preservation of significant archaeological, historic, and cultural resources in the community. **Policy RC10.1:** Support the preservation and protection of historically, architecturally, or archaeologically significant sites, places, districts, structures, landforms, objects, native burial sites and other features.
City of Redlands General Plan Open Space and Conservation Element	**Guiding Policy 7.30a:** Protect archaeological and paleontological resources for their aesthetic, scientific, educational, and cultural values. **Implementing Policy 7.30b:** Using the Archaeological Resource Sensitivity Map, review proposed development projects to determine whether the site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources; refer all applications affecting sensitive areas to the Archaeological Information Center for further study. **Implementing Policy 7.30c:** Require that applicants for projects identified by the Archaeological Information Center as potentially affecting sensitive resource sites hire a consulting archaeologist to develop an archaeological resource mitigation plan and monitor the project to ensure that mitigation measures are implemented. **Implementing Policy 7.30d:** Require that areas found during construction to contain significant historic or prehistoric archaeological artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation. **Implementing Policy 7.30e:** For projects involving Federal land, or requiring Federal permission or funding, ensure that applicants meet stricter criteria for archaeological resource review, prior to commencement of work.
City of San Bernardino General Plan Historical and Archaeological Resources Element	**Goal 11.1:** Develop a program to protect, preserve, and restore the sites, buildings and districts that have architectural, historical, archaeological, and/or cultural significance. **Policy 11.1.9:** Require that an environmental review be conducted on all applications (e.g., grading, building, and demolition) for resources designated or potentially designated as significant in order to ensure that these sites are preserved and protected. (LU-1) **Goal 11.5:** Protect and enhance our archaeological resources. **Policies 11.5.2:** Develop mitigation measures for projects located in archaeologically sensitive areas to protect such locations, remove artifacts, and retain them for educational display. Native American tribes should be consulted to determine the disposition of any Native American artifacts discovered.
City of Yucaipa General Plan-Open Space and Conservation Element	**Goal OS-11:** Preserve and protect the City's historical, archaeological and cultural resources. **Goal OS-12:** Ensure that community objectives for cultural resources avoid or minimize potential conflicts with traditional Native American beliefs and concerns. **Goal OS-13:** Ensure that significant paleontologic resources exposed during grading are recovered and preserved for scientific value.
County of Riverside General Plan Multipurpose Open Space Element	**Policy OS 19.2:** Review all proposed development for the possibility of archaeological sensitivity. **Policy OS 19.3:** Employ procedures to protect the confidentiality of and prevent inappropriate public exposure of sensitive archaeological resources when soliciting the assistance of public and volunteer organizations. **Policy OS 19.6:** Enforce the Historic Building Code so that historic buildings can be preserved and used without posing a hazard to public safety. **Policy OS 19.8:** Require that whenever existing information indicates that a site proposed for development may contain biological, cultural, paleontological, or other scientific resources, a report shall be filed stating the extent and potential significance of the resource that may exist within the proposed development and appropriate measures through which the impacts of development may be mitigated. **Policy OS 19.9:** This policy requires that when existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site grading activities, with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate repository, and file a report with the Planning Department documenting any paleontological resources that are found during the course of site grading.

Table D.7-11. Local Land Use Documents Applicable to Cultural Resources for the Proposed Project

Document	Plans, Policies, Programs
County of San Bernardino General Plan Conservation Element	**Policy CO 3.1:** Identify and protect important archaeological and historic cultural resources in areas of the County that have been determined to have known cultural resource sensitivity.
	Policy CO 3.2: Identify and protect important archaeological and historic cultural resources in all lands [where activity] involves disturbance of previously undisturbed ground.
	Policy CO 3.3: Ensure that important cultural resources are avoided or impacts minimized to protect Native American beliefs and traditions.
	Policy CO 3.5: Ensure that important cultural resources are avoided or minimized to protect Native American beliefs and traditions.

D.7.3 Environmental Impacts of the Proposed Project

D.7.3.1 Approach to Impact Assessment

Cultural resources are places or objects that are important for historical, scientific, and religious reasons and are of concern to cultures, communities, groups, or individuals. These resources may include buildings and architectural remains, archaeological sites and other artifacts that provide evidence of past human activity, human remains, or Traditional Cultural Properties.

In the context of a federally permitted undertaking, such as the Proposed Project, the management of cultural resources must be determined by the Federal Lead Agency under NEPA and Section 106 in consultation with the SHPO and other interested parties. Any action, as part of an undertaking, that could affect a historic property is subject to review and comment under Section 106 of the NHPA of 1966. Cultural resources that retain integrity and meet one or more of the criteria of eligibility [36 CFR 60.6] qualify as historic properties that are eligible for listing on the NRHP; such resources must be managed in compliance with the ACHP's regulations (36 CFR 800).

Within the State of California there are also provisions in CEQA, its Guidelines, and other provisions of the California Public Resources Code for the protection and preservation of significant cultural resources (i.e., "historical resources" and "unique archaeological resources"). The CEQA Guidelines provide three ways in which a resource can be a "historical resource," and thus a cultural resource meriting analysis: (1) the resource is listed on the CRHR; (2) the resource is included in a local register of historical resources (pursuant to §5020.1(k) of the Public Resources Code), or identified as significant in an historical resources survey (meeting the criteria in §5024.1(g) of the Public Resources Code); or (3) the lead agency determines the resource is "historically significant" by assessing CRHR listing guidelines that parallel the federal criteria. (§15064.5(a)(1)-(3) of the CEQA Guidelines (as amended)). To qualify as a historical resource under (1) or (3), the resource must also retain the integrity of its physical identity that existed during its period of significance. Integrity is evaluated with regard to retention of location, design, setting, materials, workmanship, feeling, and association (14 C.C.R. 4852(c)). Finally, under both federal and California State law, Native American human remains and associated grave goods are granted special consideration.

Direct and indirect impacts only to historic properties (NRHP) and historical resources (CRHR) are considered in the assessment. Management of cultural resources ineligible for NRHP or CRHR listing is not required (36 CFR 800 and §15064.5(c)(4) of the CEQA Guidelines (as amended)).

D.7.3.1.1 Applicant Proposed Measures

SCE has committed to implementing a number of measures to reduce project impacts to cultural resources. These Applicant Proposed Measures (APMs) shown in Table D.7-12 are presented in Section B.6. They would

reduce the potential impacts of construction and operation of the Proposed Project. In the following disclosure and analysis of the project's potential to impact cultural resources, it is assumed that the APMs would be implemented as elements of project development, planning, and construction. These APMs are superseded by mitigation measures developed to provide more detail and to more effectively reduce impacts (see Section D.7.3.3).

Table D.7-12. Applicant Proposed Measures – Cultural Resources

APM	Description
APM CUL-1	Prehistoric Resources: a. avoid (avoidance by design, preserve in place, capping); b. minimize (reduction of Area of Direct Impact/Effect); c. mitigate (data recovery). Historic Resources: a. avoid (avoidance by design, preserve in place, capping); b. minimize (reduction of Area of Direct Impact/Effect); c. mitigate (data recovery). Historic Architecture/Utility Infrastructure: a. avoid (avoidance by design, preserve in place); b. minimize (reduction of Area of Direct Impact/Effect); c. mitigate (historic context statement, Historic American Engineering Record, Historic American Building Survey, advanced DPR recordation). Traditional Cultural Property: a. consult with Native American stakeholders on perceived impacts/effects and negotiate mutually agreeable treatment.
APM CUL-2	Prior to construction, SCE would prepare a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan or similar document to be implemented if an unanticipated discovery is made. At a minimum the Plan would detail the following elements: ▪ Worker and supervisor training in the identification of cultural remains that could be found in the Proposed Project area, and the implications of disturbance and collection of cultural resources per applicable federal and state laws. ▪ Worker and supervisor response procedures to be followed in the event of an unanticipated discovery, including appropriate points of contact for professionals qualified to make decisions about the potential significance of any find. ▪ Identification of persons authorized to stop or redirect work that could affect the discovery, and their on-call contact information. ▪ Procedures for monitoring construction activities in archaeologically sensitive areas. ▪ A minimum radius around any discovery within which work would be halted until the significance of the resource has been evaluated and mitigation implemented as appropriate. ▪ Procedures for identifying and evaluating the historical significance of a discovery. ▪ Procedures for consulting Native Americans when identifying and evaluating the significance of discoveries involving Native American cultural materials. ▪ Procedures to be followed for treatment of discovered human remains per current state law and protocol developed in consultation with Native Americans.

D.7.3.2 Impact Criteria[1-2][09][0-9][0-9]

NEPA does not have specific significance criteria. However, NEPA regulations contain guidance regarding significance analysis. Specifically, consideration of "significance" involves an analysis of both context and intensity (Title 40 Code of Federal Regulations 1508.27). Using the following criteria for the purposes of analysis, the project or an alternative would impact cultural resources if it would:

- Cause an adverse effect or substantial adverse change in the characteristic of a historic property or Traditional Cultural Property as defined by federal guidelines.

- Cause a substantial adverse change in the characteristics of a significant cultural resource or unique archaeological site as defined by State of California guidelines.
- Cause a substantial adverse change in the characteristics of a cultural resource included in a local register of historical resources.
- Uncover, expose, and/or damage Native American human remains.

Under all of these criteria, adverse changes and impacts include the following:

- Cause a physical, visual, or audible disturbance resulting from construction, operation, and development that would affect the integrity of a resource or the qualities that make it eligible for the NRHP or CRHR;
- Expose cultural resources to vandalism or unauthorized collecting;
- Cause a substantial increase in the potential for erosion or other natural processes that could affect cultural resources; or
- Cause neglect of a cultural resource that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to a Native American tribe.

D.7.3.3 Impacts and Mitigation Measures

This section analyzes impacts to historic properties (NRHP-eligible)/historical resources (CRHR-eligible) identified within the Proposed Project. In total, 118 known resources are within the direct APE of the Proposed Project. Of those, 46 are isolated artifacts that do not require mitigation measures, because isolated artifacts, by definition, lack immediate cultural context and therefore lack the data potential that would be required to be considered eligible for the NRHP or CRHR inclusion. Sixty-four of the 118 resources have been determined ineligible for the NRHP or CRHR. One resource would not be impacted and was not evaluated. Seven of the 118 known resources have been determined eligible for the NRHP (Table D.7-13). While these resources are within the direct APE of the Proposed Project, they can be avoided entirely and would not experience any direct impacts when the mitigation measures identified below are used for avoidance and protection during construction.

Table D.7-13. NRHP/CRHR Eligible Cultural Resources Within the Project APE

Resource	Description	Location within the Project APE
P-36-10330 (CA-SBR-10330H)	Southern Pacific Railroad	In APE of ROW; no direct impacts.
P-33-14871 (CA-RIV-7926)	Historic Millard Canyon Stone Canal	In APE of ROW; no direct impacts. The project proposes to tear down two existing transmission lines that cross over the canal and rebuild new lines within the existing ROW using existing access roads that cross through the site.
P-33-11265 (CA-RIV-6726)	Colorado River Aqueduct	In APE of ROW; no direct impacts. Portion of aqueduct in APE is underground.
P-33-9498 (CA-RIV-6381H)	Southern Pacific Railroad	In APE of ROW; no direct impacts.
P-33-2262 (CA-RIV-2262H)	Historic Vanderventer Ranch	In APE of ROW; no direct impacts. Project proposes to use existing access road that crosses through site.
P-33-15004 / P-33-7296	Historic Singleton Ranch District	In APE of ROW; no direct impacts. Project proposes to use existing access road that crosses through site.
P-33-4213 (CA-RIV-4213H)	Historic St. Boniface Indian School and Cemetery	In APE of ROW; no direct impacts. Project proposes to use existing access road that crosses through site.

Impact CL-1: Construction, operation and maintenance, and restoration could cause an adverse change to known historic properties

As shown in Table D.7-13, there are seven NRHP/CRHR eligible cultural resources within the project APE. Inadvertent direct impacts may occur to theses known historic properties/historical resources during construction, operation and maintenance, and restoration through ground disturbing activities such as vegetation removal, grading, trenching, boring, and excavation for new structure locations and transmission lines, access roads, pull sites, and substations. Indirect impacts could also result from inadvertent or malicious vandalism, unauthorized collection of cultural resources on the surface of sites, or increased travel to construction sites. Indirect impacts to location, setting, feeling, and association of historic properties/historical resources are not anticipated.

Of the seven NRHP/CRHR eligible resources, one resource, the Colorado River Aqueduct (CA-RIV-6726, is entirely underground within the project's APE. Therefore, project activities will not directly or indirectly impact this resource. Another resource, the Southern Pacific Railroad (CA-SBR-10330H and CA-RIV-6381H) crosses through many segments of the project's APE. However, this resource is in constant operation and project activities will not directly or indirectly impact this resource. The remaining four NRHP/CRHR eligible resources, (Millard Canyon Stone Canal [CA-RIV-7926], Vanderventer Ranch [CA-RIV-2262H], Singleton Ranch District [P-33-15004/P-33-7296], and St. Boniface Indian School and Cemetery [CA-RIV-4213H]) may experience inadvertent direct impacts from project activities. The preferred treatment for historic properties/historical resources is to avoid and protect them. Within overhead segments of transmission corridors, avoidance would be accomplished by siting structures, laydown areas, pull sites, and access roads away from historic properties. Additional protection measures would include Environmentally Sensitive Area (ESA) fencing, monitoring, and construction restrictions. Such measures to avoid and protect resources are addressed by Mitigation Measures CL-1a (Avoid environmentally sensitive areas), CL-1b (Develop cultural resource management plan [CRMP]), CL-1c (Train construction personnel), and CL-1d (Conduct construction monitoring), which provide detail on how these activities would be implemented to ensure that inadvertent impacts do not occur.

Mitigation Measures for Impact CL-1: Construction, operation and maintenance, and restoration could cause an adverse change to known historic properties

CL-1a **Avoid environmentally sensitive areas.** SCE shall perform focused pre-construction surveys for any project areas not yet surveyed (e.g., new or modified staging areas, pull sites, or other work areas). Resources discovered during the surveys would be subject to Mitigation Measures CL-1b (Develop Cultural Resource Management Plan [CRMP]) and CL-1d (Conduct construction monitoring). Where operationally feasible, all NRHP- and CRHR-eligible resources shall be protected from direct project impacts by project redesign (i.e., relocation of the line, ancillary facilities, or temporary facilities or work areas). In addition, all historic properties/ historic resources shall be avoided by all project construction, operation and maintenance, and restoration activities. Avoidance mechanisms shall include fencing off such areas as Environmentally Sensitive Areas (ESAs) for the duration of the Proposed Project or as outlined in the CRMP.

CL-1b **Develop Cultural Resource Management Plan (CRMP).** SCE shall prepare and submit for approval a Cultural Resource Management Plan (CRMP) to guide all cultural resource management activities during project construction. Management of cultural resources shall follow the standards and guidelines established by the National Park Service for implementing Section 106 of the National Historic Preservation Act ("Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines," 48 Federal Register 190 (29 September

1983), pp. 44716-44742). The CRMP shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction.

The CRMP shall define and map all known NRHP- and CRHR-eligible properties in or within 100 feet of the Proposed Project APE and shall identify the cultural values that contribute to their NRHP- and CRHR-eligibility. A cultural resources protection plan shall be included that details how NRHP- and CRHR-eligible properties will be avoided and protected during construction. Measures shall include, at a minimum, designation and marking of ESAs, archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail: what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel.

The CRMP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP- and CRHR-eligible cultural resources, including burials, cremations, or sacred features. The CRMP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing NRHP- and CRHR-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the CRMP shall detail the methods, the consultation procedures, and the timelines for assessing NRHP- and CRHR-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be reviewed by appropriate Native Americans and approved by the BLM, CPUC, and the California Office of Historic Preservation (OHP) prior to implementation.

The CRMP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. SCE shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The CRMP shall specify that archaeologists and other discipline specialists conducting the studies meet the Professional Qualifications Standards mandated by the OHP.

CL-1c **Train construction personnel.** Prior to the initiation of construction, all construction personnel shall be trained, by a qualified archaeologist, regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. SCE shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Workers' Environmental Training Program so they are aware of the potential for inadvertently exposing buried archaeological deposits. SCE shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA and anticipated procedures to treat unexpected discoveries.

CL-1d **Conduct construction monitoring.** Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could be encountered within the Proposed Project area. Monitoring shall occur in all areas of ground-disturbing activity that occur within 100 feet of a cultural resource ESA. The qualifications of the principal archaeologist and cultural resource monitors shall be approved by the CPUC and BLM. As specified in the CRMP, intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the principal archaeologist, as identified in the CRMP. Copies of monitoring reports shall be submitted to the CPUC/BLM on a weekly basis.

A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. SCE shall retain and schedule any required Native American monitors.

Impact CL-2: Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains

Unknown buried resources (prehistoric and historical archaeological sites) could be inadvertently unearthed during ground-disturbing activities associated with project construction, operation and maintenance, and restoration. The procedures and provisions in Mitigation Measure CL-2a (Treat previously unidentified cultural resources), below, provide detail on how this activity would be implemented.

No human remains are known to be within the Proposed Project area. However, there is always the possibility that unmarked burials may be unearthed during construction, operation and maintenance, and restoration. The procedures and provisions in Mitigation Measure CL-2b (Properly treat human remains), below, provide detail on how this activity would be implemented, in the unlikely event of an accidental discovery of any human remains.

Mitigation Measures for Impact CL-2: Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains

In addition to Mitigation Measures CL-2a and CL-2b, Mitigation Measure CL-1d (Construction monitoring) shall also be implemented for Impact CL-2.

CL-2a **Treat previously unidentified cultural resources.** If previously unidentified cultural resources are unearthed during construction activities, construction work in the immediate area of the find shall be halted and directed away from the discovery until a qualified archaeologist assesses the potential significance of the resource. Once the find has been inspected and a preliminary assessment made, SCE will consult with the CPUC and BLM to make the necessary plans for evaluation and treatment of the find(s).

CL-2b **Properly treat human remains.** SCE shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign.

If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer and CPUC shall be informed immediately. If the remains are on federal land, the remains shall be treated in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA). If the remains are not on federal land, the remains shall be treated in accordance with Health and Safety Code Section 7050.5,

CEQA Section 15064.5(e), and Public Resources Code Section 5097.98. SCE shall assist and support the CPUC and BLM, as appropriate, in all required NAGPRA and Section 106 actions, government to-government and consultations with Native Americans, agencies and commissions, and consulting parties as requested by the CPUC or BLM. SCE shall comply with and implement all required actions and studies that result from such consultations.

D.7.3.4 Impacts of Connected Actions

Impact CL-1: Construction, operation and maintenance, and restoration could cause an adverse change to known historic properties

"Historic properties," as described in Section D.7.2, include historical built environment resources, prehistoric archaeological sites, historical archaeological sites, and traditional cultural properties—regardless of their age. They are resources that are determined by a federal, State, or local agency to be eligible for listing on a historic register. The areas where solar projects have been identified as connected actions include historic resources. When archaeological resources, both historic and prehistoric, are found eligible for the NRHP/CRHR it is usually because of their potential for containing data that contribute to important research issues (Criterion D/4).

Mitigation through data-recovery excavations can salvage a portion of those important data, and apply them to relevant research. However, as data recovery mitigation is, in itself, destructive, avoidance is preferred wherever possible. Typical mitigation measures to avoid and protect cultural resources include: CL-1a (Avoid environmentally sensitive areas), CL-1b (Develop cultural resource management plan), CL-1c (Train construction personnel), and CL-1d (Conduct construction monitoring). This would apply to all geographic areas with solar projects.

Desert Center Area. The Palen Solar Power Project Reconfigured Alternative #2 analysis found that the project would have a significant direct impact on 49 resources either recommended eligible or assumed eligible for the NRHP/CRHR including direct impacts to nine prehistoric archaeological sites, direct impacts to 40 historic-period archaeological sites, and cumulative impacts to the Prehistoric Trails Network Cultural Landscape and DTC/C-AMA District (CEC, 2012). It would also impact 12 assumed-eligible resources including nine historic-period refuse scatters, two placer mining claim markers, and a temporary military camp. To mitigate these impacts, the CEC recommended a number of Conditions of Certification including specifying who would implement the conditions, their required training, a Cultural Resources Monitoring and Mitigation Plan, reports, monitoring, and treatment Conditions for direct impacts to specific resources.

The Desert Harvest Solar Project EIS found that it would have a direct effect on one prehistoric archaeological site and an indirect effect to the DTC/C-AMA (BLM, 2010). The additional 300 MW of solar PV that would be developed in the Desert Center region on approximately 2,400 acres are anticipated to have similar effects as Palen and Desert Harvest. These projects within the Desert Center area could impact historic properties directly during construction activities such as excavating and grading. Projects within the Desert Center Area could also indirectly impact historic properties, such as the NRHP-listed North Chuckwalla Petroglyph District and the NRHP-eligible proposed DTC/C-AMA District, by causing a visual intrusion to the setting of the historic property.

Blythe Area. The connected solar projects in this the Blythe area would involve development of 524 MW of solar PV projects on about 4,200 acres. Projects within the Blythe Area could impact historic properties directly during construction activities such as excavating and grading. As noted in Section B.7.2.3 (Impact Analysis Approach Summary) the Blythe Mesa Solar Project Draft EIR/EA is the analysis model for these projects. The EIR/EA found that the Blythe Mesa Solar Project would effect a portion of one proposed

historic district, five historic-era archaeological sites, two historic-era built resources, 18 historic-era isolates, six prehistoric isolates, and one isolate with historic and prehistoric elements (Riverside County and BLM, 2015). None of these sites are considered historic properties pursuant to Section 106 of the NHPA and both the BLM and SHPO do not consider isolated artifacts eligible for the NRHP (Riverside County and BLM, 2015). No sites within the footprint were considered eligible for listing on the CRHR (Riverside County and BLM, 2015). In summary, there are dozens of known cultural resources within the Blythe Area; however, only a few of these resources are eligible for listing on the NRHP/CRHR.

Impact CL-2: Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains

In all of the areas where the solar projects may be located, the potential for impacts to unknown significant subsurface archaeological resources is considered moderate. This is the case because of the number of known archaeological sites within the Blythe Area in particular, and the extent of ground-disturbing activities associated with construction of large solar projects. Types of subsurface features that could be encountered at projects within the Desert Center and Blythe areas include prehistoric resources such as buried living surfaces, midden deposits, hearths, burials, and cremations. Historical resources that could be unearthed during project construction include refuse pits and privies. Recommended mitigation measures for treatment of buried archaeological resources encountered during project construction include: CL-2a (Treatment of previously unidentified cultural resources) and CL-2b (Properly treat human remains).

D.7.4 Environmental Impacts of Project Alternatives

Three alternatives are considered in this section; all of these alternatives would be located within the existing WOD ROW. The No Action Alternative is evaluated in Section D.7.5. Alternatives are described in detail in Appendix 5 (Alternatives Screening Report) and are summarized in Section C.

Cultural resources within the ROW are described by segment in Section D.7.1.2 above; the description of the environmental setting would apply equally to the alternatives.

D.7.4.1 Tower Relocation Alternative

The Tower Relocation Alternative would locate certain transmission structures in Segments 4, 5, and 6 farther from existing homes than would be the case under the Proposed Project.

Two impacts (CL-1 and CL-2) related to cultural resources were identified for the Proposed Project. These impacts also would apply to the Tower Relocation Alternative, which overall would be the same as the Proposed Project, except for the relocated transmission towers that are described above and in Appendix 5. The full text of all mitigation measures referenced in this section is presented in Section D.7.3.3, except where otherwise noted.

Impact CL-1: Construction, operation and maintenance, and restoration could cause an adverse change to known historic properties

There are seven NRHP/CRHR eligible cultural resources within the project APE. Inadvertent direct impacts may occur to theses known historic properties/historical resources during construction, operation and maintenance, and restoration through ground disturbing activities such as vegetation removal, grading, trenching, boring, and excavation for new structure locations and transmission lines, access roads, pull

sites, and substations. Indirect impacts could also result from inadvertent or malicious vandalism, unauthorized collection of cultural resources on the surface of sites, or increased travel to construction sites. Indirect impacts to location, setting, feeling, and association of historic properties/historical resources are not anticipated.

Under the Tower Relocation Alternative, some proposed towers would be moved approximately 50 feet farther from the southern edge of the ROW. The minor adjustment to the location of these towers would not cause an adverse change to known historic properties. The NRHP/CRHR eligible cultural resources within the project APE are not within the area where relocated towers would occur. As a result, there is no difference between the effects of the Proposed Project and the Tower Relocation Alternative for known historic properties.

Impact CL-2: Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains

Unknown buried resources (prehistoric and historical archaeological sites) could be inadvertently unearthed during ground-disturbing activities associated with project construction, operation and maintenance, and restoration. No human remains are known to be within the Proposed Project area. However, there is always the possibility that unmarked burials may be unearthed during construction, operation and maintenance, and restoration.

The minor adjustment to the location of certain towers would not change the likelihood that construction could create an adverse effect to unknown buried prehistoric and historical archaeological sites or buried Native American human remains; this could result equally from construction of the Proposed Project. The severity of this adverse effect would be reduced through implementation of Mitigation Measures CL-2a (Treat previously unidentified cultural resources), CL-2b (Properly treat human remains), and CL-1d (Conduct construction monitoring). Even with implementation of mitigation, the accidental discovery and disturbance of previously unidentified human remains would continue to be a substantial adverse effect.

D.7.4.2 Iowa Street 66 kV Underground Alternative

The Iowa Street 66 kV Underground Alternative would place a 1,600-foot segment of subtransmission line underground, rather than overhead.

Two impacts (CL-1 and CL-2) were identified under the Proposed Project for cultural resources. These impacts also would apply to the Iowa Street 66 kV Underground Alternative, which overall would be the same as the Proposed Project, with the exception of the underground portion of the subtransmission line that is described above and in Appendix 5. The full text of all mitigation measures referenced in this section is presented in Section D.7.3.3, except where otherwise noted.

Impact CL-1: Construction, operation and maintenance, and restoration could cause an adverse change to known historic properties

There are seven NRHP/CRHR eligible cultural resources within the project APE. Inadvertent direct impacts may occur to theses known historic properties/historical resources during construction, operation and maintenance, and restoration through ground disturbing activities such as vegetation removal, grading, trenching, boring, and excavation for new structure locations and transmission lines, access roads, pull sites, and substations. Indirect impacts could also result from inadvertent or malicious vandalism, unauthorized collection of cultural resources on the surface of sites, or increased travel to construction sites. Indirect impacts to location, setting, feeling, and association of historic properties/historical resources are not anticipated.

None of the identified NRHP/CRHR eligible cultural resources within the APE occur in the vicinity of the underground segment. Therefore, the underground 66 kV subtransmission line installation would not cause an adverse change to known historic properties.

Impact CL-2: Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains

Unknown buried resources (prehistoric and historical archaeological sites) could be inadvertently unearthed during ground-disturbing activities associated with project construction, operation and maintenance, and restoration. No human remains are known to be within the Proposed Project area. However, there is always the possibility that unmarked burials may be unearthed during construction, operation and maintenance, and restoration.

The Iowa Street 66 kV Underground Alternative would require construction of a 1,600-foot segment of 66 kV subtransmission line underground instead of installing it on poles. This alternative would increase the amount of subsurface disturbance compared to the Proposed Project, which would increase the risk of an adverse effect to unknown buried prehistoric and historical archaeological sites or buried Native American human remains. The severity of this adverse effect would be reduced through implementation of Mitigation Measures CL-2a (Treat previously unidentified cultural resources), CL-2b (Properly treat human remains), and CL-1d (Conduct construction monitoring). Even with implementation of mitigation, the accidental discovery and disturbance of previously unidentified human remains would continue to be a substantial adverse effect.

D.7.4.3 Phased Build Alternative

The Phased Build Alternative is summarized in Section C.4.3 and described in detail in Appendix 5. The Phased Build Alternative would retain existing double-circuit 220 kV transmission structures to the extent feasible, remove single-circuit structures, add new double-circuit 220 kV structures, and string all structures with higher-capacity conductors.

Two impacts (CL-1 and CL-2) related to cultural resources were identified for the Proposed Project. These impacts also would apply to the Phased Build Alternative, which overall would be similar to the Proposed Project. However, the reduced amount of construction activities required for this alternative reduces the likelihood of impacts to cultural resources. The full text of all mitigation measures referenced in this section is presented in Section D.7.3.3.

Impact CL-1: Construction, operation and maintenance, and restoration could cause an adverse change to known historic properties

There are seven NRHP/CRHR eligible cultural resources within the project APE. Inadvertent direct impacts may occur to these known historic properties/historical resources during construction, operation and maintenance, and restoration. These impacts can occur through ground disturbing activities such as vegetation removal, grading, trenching, boring, and excavation for new structure locations and transmission lines, access roads, pull sites, and substations. Indirect impacts could also result from inadvertent or malicious vandalism, unauthorized collection of cultural resources on the surface of sites, or increased travel to construction sites. Indirect impacts to location, setting, feeling, and association of historic properties/historical resources are not anticipated.

Of the seven NRHP/CRHR eligible resources, one resource, the Colorado River Aqueduct (CA-RIV-6726, is entirely underground within the project's APE. Therefore, project activities will not directly or indirectly impact this resource. Another resource, the Southern Pacific Railroad (CA-SBR-10330H and CA-RIV-6381H)

crosses through many segments of the project's APE. However, this resource is in constant operation and project activities will not directly or indirectly impact this resource. The remaining four NRHP/CRHR eligible resources, (Millard Canyon Stone Canal [CA-RIV-7926], Vanderventer Ranch [CA-RIV-2262H], Singleton Ranch District [P-33-15004/P-33-7296], and St. Boniface Indian School and Cemetery [CA-RIV-4213H]) may experience inadvertent direct impacts from project activities.

The preferred treatment for historic properties/historical resources is to avoid and protect them. Within overhead segments of transmission corridors, avoidance would be accomplished by siting structures, laydown areas, pull sites, and access roads away from historic properties. Additional protection measures would include Environmentally Sensitive Area (ESA) fencing, monitoring, and construction restrictions.

The Phased Build Alternative would involve less construction than the Proposed Project because many existing double-circuit towers would be retained rather than being removed and replaced with new towers. As with the Proposed Project, four NRHP/CRHR eligible cultural resources located within the project APE may experience adverse effects during construction, operation, and maintenance through ground disturbing activities such as vegetation removal, grading, trenching, boring, and excavation for new structure locations and transmission lines, access roads, pull sites, and substations. Indirect impacts could also result from inadvertent or malicious vandalism, unauthorized collection of cultural resources on the surface of sites, or increased travel to construction sites. Indirect impacts to location, setting, feeling, and association of historic properties/historical resources are not anticipated.

The preferred treatment for historic properties/historical resources is to avoid and protect them. Within overhead segments of transmission corridors, avoidance would be accomplished by siting structures, laydown areas, pull sites, and access roads away from historic properties. Additional protection measures would include Environmentally Sensitive Area (ESA) fencing, monitoring, and construction restrictions. Such measures to avoid and protect resources are addressed by Mitigation Measures CL-1a (Avoid environmentally sensitive areas), CL-1b (Develop Cultural resource management plan [CRMP]), CL-1c (Train construction personnel), and CL-1d (Conduct construction monitoring). With implementation of mitigation, this adverse effect would be minor.

Impact CL-2: Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains

Unknown buried resources (prehistoric and historical archaeological sites) could be inadvertently unearthed during ground-disturbing activities associated with project construction, operation and maintenance, and restoration. Although no human remains are known to be within the Proposed Project area, there is always the possibility that unmarked burials may be unearthed during construction, operation and maintenance, and restoration.

In general, there would be less ground disturbance under the Phased Build Alternative as compared to the Proposed Project. Nevertheless, there would be the potential for an adverse effect to unknown buried prehistoric and historical archaeological sites or buried Native American human remains.

Similar to the Proposed Project, unknown buried resources (prehistoric and historical archaeological sites) could be inadvertently unearthed during ground-disturbing activities associated with construction, operation and maintenance, and restoration of this alternative. The severity of this adverse effect would be reduced through implementation of Mitigation Measures CL-2a (Treat previously unidentified cultural resources), CL-2b (Properly treat human remains), and CL-1d (Conduct construction monitoring). Even with implementation of mitigation, the accidental discovery and disturbance of previously unidentified human remains would continue to be a substantial adverse effect.

D.7.5 Environmental Impacts of No Action Alternative

D.7.5.1 No Action Alternative Option 1

The No Action Alternative Option 1 is described in Section C.6.3.1. It would consist of a new 500 kV circuit, primarily following the Devers-Valley transmission corridor and extending 26 miles between Devers Substation. It would also require a new 40-acre substation south of Beaumont, and 4 new 220 kV circuits extending 7 miles from the new Beaumont Substation to El Casco Substation, primarily following the existing El Casco 115 kV ROW. The remainder of the No Action Alternative, from El Casco Substation to the San Bernardino and Vista Substations, would be identical to the Proposed Project. Information on environmental resources and project impacts is derived from the Devers–Palo Verde 500 kV No. 2 Project EIR/EIS (CPUC and BLM, 2006) and the El Casco System Project Draft EIR (CPUC, 2007); which include nearly all of the No Action alignment.

No Action Alternative Transmission Lines and Beaumont Substation. Known and undiscovered cultural resources may occur along the transmission ROW and at the Beaumont Substation. In the DPV2 EIR/EIS, 14 known cultural resources were identified between Devers and Valley Substations along the transmission route. These included 5 prehistoric sites, 5 historical deposits or features, 2 prehistoric/historical multicomponent sites, and 2 isolated artifacts. Unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains may be encountered. As well, traditional cultural properties may be identified. To reduce impacts, mitigation measures would be required. These would include avoiding culturally sensitive areas, developing a Cultural Resource Management Plan (addressing the identification of unanticipated discoveries and their treatment), training construction personnel regarding applicable laws and regulations, conducting monitoring during construction, and properly treating human remains. If unavoidable direct impacts occur to properties eligible for the National Register of Historic Places, mitigation through data recovery would reduce impacts, but the effect would still be considered significant and unavoidable. Depending on resource locations and project impacts, the significance of the impact could range from no impact to significant and unavoidable.

D.7.5.2 No Action Alternative Option 2

No Action Alternative Option 2 would require the construction of over 40 miles of new 500 kV transmission line, following the existing Valley-Serrano 500 kV line. The alternative is described in Section C.6.3.2, and illustrated on Figure C-6b.

Although this alternative would construct a 500 kV circuit within an existing transmission corridor, both known and undiscovered cultural resources may be encountered. The western portion of the route passes through the Weir Canyon Archeological District, which has been nominated for the National Register. The route also passes near Glen Ivy Hot Springs (approximately 1.5 miles south of MP 21), which is an area of high archaeological potential. Excavation for construction of transmission tower foundations and other subsurface disturbance could damage or destroy unknown buried prehistoric and historical archaeological sites or buried Native American human remains. The disturbance or destruction of Native American human remains would be a substantial adverse impact. In addition, eligible historic or traditional cultural properties may be identified along the route. Mitigation similar to that described in the Proposed Project and No Action Alternative Option 1 would be required to reduce the severity of these impacts.

D.7.6 Mitigation Monitoring, Compliance, and Reporting

Table D.7-14 presents the mitigation monitoring, compliance, and reporting actions for cultural resources.

Table D.7-14. Mitigation Monitoring Program – Cultural Resources

MITIGATION MEASURE	**CL-1a: Avoid environmentally sensitive areas.** SCE shall perform focused pre-construction surveys for any project areas not yet surveyed (e.g., new or modified staging areas, pull sites, or other work areas). Resources discovered during the surveys would be subject to Mitigation Measures CL-1b (Develop Cultural Resource Management Plan [CRMP]) and CL-1d (Conduct construction monitoring). Where operationally feasible, all NRHP- and CRHR-eligible resources shall be protected from direct project impacts by project redesign (i.e., relocation of the line, ancillary facilities, or temporary facilities or work areas). In addition, all historic properties/historic resources shall be avoided by all project construction, operation and maintenance, and restoration activities. Avoidance mechanisms shall include fencing off such areas as Environmentally Sensitive Areas (ESAs) for the duration of the Proposed Project or as outlined in the CRMP.
Location	Entire project
Monitoring / Reporting Action	CPUC/BLM monitor verifies that SCE has performed surveys and complied with CRMP.
Effectiveness Criteria	Surveys are completed and any discovered resources are treated per the CRMP and sites are fenced as ESAs.
Responsible Agency	CPUC/BLM
Timing	Prior to construction
MITIGATION MEASURE	**CL-1b: Develop Cultural Resource Management Plan (CRMP).** SCE shall prepare and submit for approval a Cultural Resource Management Plan (CRMP) to guide all cultural resource management activities during project construction. Management of cultural resources shall follow the standards and guidelines established by the National Park Service for implementing Section 106 of the National Historic Preservation Act ("Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines," 48 Federal Register 190 (29 September 1983), pp. 44716-44742). The CRMP shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction. The CRMP shall define and map all known NRHP- and CRHR-eligible properties in or within 100 feet of the Proposed Project APE and shall identify the cultural values that contribute to their NRHP- and CRHR-eligibility. A cultural resources protection plan shall be included that details how NRHP- and CRHR-eligible properties will be avoided and protected during construction. Measures shall include, at a minimum, designation and marking of ESAs, archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail: what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel. The CRMP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP- and CRHR-eligible cultural resources, including burials, cremations, or sacred features. The CRMP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing NRHP- and CRHR-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the CRMP shall detail the methods, the consultation procedures, and the timelines for assessing NRHP- and CRHR-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be reviewed by appropriate Native Americans and approved by the BLM, CPUC, and the California Office of Historic Preservation (OHP) prior to implementation. The CRMP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. SCE shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The CRMP shall specify that archaeologists and other discipline specialists conducting the studies meet the Professional Qualifications Standards mandated by the OHP.

Table D.7-14. Mitigation Monitoring Program – Cultural Resources

Location	Entire project
Monitoring / Reporting Action	CRMP is received and reviewed/approved; CRMP is implemented
Effectiveness Criteria	CRMP is submitted and approved, CRMP is implemented throughout project duration and identified resources are protected
Responsible Agency	CPUC/BLM
Timing	At least 60 days before the start of construction
MITIGATION MEASURE	**CL-1c: Train construction personnel.** Prior to the initiation of construction, all construction personnel shall be trained, by a qualified archaeologist, regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. SCE shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Worker's Environmental Training Program so they are aware of the potential for inadvertently exposing buried archaeological deposits. SCE shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA and anticipated procedures to treat unexpected discoveries.
Location	Entire project
Monitoring / Reporting Action	Confirm training is conducted prior to construction and for subsequent personnel added to the project
Effectiveness Criteria	All construction personnel working on the project have received training
Responsible Agency	CPUC/BLM
Timing	Prior to construction and for duration of project
MITIGATION MEASURE	**CL-1d: Conduct construction monitoring.** Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could be encountered within the Proposed Project area. Monitoring shall occur in all areas of ground-disturbing activity that occur within 100 feet of a cultural resource ESA. The qualifications of the principal archaeologist and cultural resource monitors shall be approved by the CPUC and BLM. As specified in the CRMP, intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the principal archaeologist, as identified in the CRMP. Copies of monitoring reports shall be submitted to the CPUC/BLM on a weekly basis. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. SCE shall retain and schedule any required Native American monitors.
Location	Entire project
Monitoring / Reporting Action	Confirm assignment of required cultural resources personnel and their ongoing monitoring of project ground-disturbing activities; monitoring reports received
Effectiveness Criteria	Archaeological monitoring is conducted as specified.
Responsible Agency	CPUC/BLM
Timing	Ongoing during ground-disturbing activities; monitoring reports submitted weekly.

Table D.7-14. Mitigation Monitoring Program – Cultural Resources

MITIGATION MEASURE	**CL-2a: Treat previously unidentified cultural resources.** If previously unidentified cultural resources are unearthed during construction activities, construction work in the immediate area of the find shall be halted and directed away from the discovery until a qualified archaeologist assesses the potential significance of the resource. Once the find has been inspected and a preliminary assessment made, SCE will consult with the CPUC and BLM to make the necessary plans for evaluation and treatment of the find(s).
Location	Entire project
Monitoring / Reporting Action	Notice is promptly given previously unidentified cultural resources; proper procedures are followed
Effectiveness Criteria	All discoveries are reported and treated in consistent with agreed upon methods
Responsible Agency	CPUC/BLM
Timing	Throughout duration of project
MITIGATION MEASURE	**CL-2b: Properly treat human remains.** SCE shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign. If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer and CPUC shall be informed immediately. If the remains are on federal land, the remains shall be treated in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA). If the remains are not on federal land, the remains shall be treated in accordance with Health and Safety Code Section 7050.5, CEQA Section 15064.5(e), and Public Resources Code Section 5097.98. SCE shall assist and support the CPUC and BLM, as appropriate, in all required NAGPRA and Section 106 actions, government to-government and consultations with Native Americans, agencies and commissions, and consulting parties as requested by the CPUC or BLM. SCE shall comply with and implement all required actions and studies that result from such consultations.
Location	Entire project
Monitoring / Reporting Action	SCE provides notice to CPUC/BLM of discovery and appropriate follow-up occurs
Effectiveness Criteria	Human remains are treated in accordance with applicable laws and regulations
Responsible Agency	CPUC/BLM
Timing	Upon discovery of human remains

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